

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
Alexandria Division

-----: :
SONY MUSIC ENTERTAINMENT, et al., :
Plaintiffs, :
-vs- : Case No. 1:18-cv-950
COX COMMUNICATIONS, INC., et al., :
Defendants. :
-----: :

VOLUME 3 (P.M. Portion)

TRIAL TRANSCRIPT

December 4, 2019

Before: Liam O'Grady, USDC Judge

And a Jury

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COURT'S RULINGS/JURY INSTRUCTIONS

1 NOTE: The afternoon portion of the case on
2 December 4, 2019, begins in the absence of the jury as follows:
3 JURY OUT

4 THE COURT: All right. Mr. Buchanan, you want to
5 talk about pulse check, one another matter?

6 MR. BUCHANAN: I had pulse check. So, first, I was
7 going to do something that -- which I think there is no
8 objection to, which is maybe a first, but --

9 THE COURT: Okay. Okay.

14:01:27 10 MR. BUCHANAN: -- I was going to move in Exhibit --
11 Defense Exhibit 81A.

12 MR. OPPENHEIM: No objection.

13 THE COURT: All right. That's received.

14 MR. BUCHANAN: And you had something?

15 MR. OPPENHEIM: Yes, Your Honor. I would like to
16 make a very clear record of what just happened because it took
17 me a little while to figure it out.

18 So Mr. Brody asked to use for impeachment an exhibit
19 that Cox refused to stipulate to us that we could use. And we
14:02:00 20 had asked this morning -- Mr. Brody asked the Court and was
21 allowed to show that exhibit to the jury for what he claimed
22 was impeachment purposes.

23 Mr. Brody then asked his technical assistant to do a
24 search of that exhibit and look for something. The technical
25 assistant did not do the search. Instead, he called up a

1 demonstrative that had been prepared in advance and included
2 red boxes and highlighting, which is not in the exhibit.

3 At no time did anyone from Cox say that this was a
4 demonstrative. In fact, had they come to us in advance and
5 discussed it with us, we would have addressed it.

6 When Ms. Frederiksen-Cross asked to see other columns
7 in the spreadsheet because she thought a search had been done,
8 the technical assistant obviously could not go to the other
9 columns because it was a static demonstrative.

14:02:57 10 So they went back to the actual exhibit, but the
11 search had not been run. And so, then they couldn't provide
12 the information that Ms. Frederiksen-Cross needed to answer the
13 question.

14 This was not an error of failing to disclose a
15 demonstrative to us in advance. Mr. Brody specific -- he
16 didn't say to his technical assistant, call up that
17 demonstrative. He said, run a search. That was an
18 intentionally misleading game.

19 And I say that very seriously. I don't make these
14:03:30 20 kinds of allegations often. I try to give opposing counsel
21 great leeway. This crossed the line.

22 We've now looked at the other demonstratives they
23 want to use, apparently, with Ms. Frederiksen-Cross. They also
24 contain additional information on them, like highlighting and
25 boxes. And one of them appears to even contain some analysis

1 that was done that we've never seen before.

2 So we would ask for two things at this point, Your
3 Honor. We would ask, first, that these demonstratives not be
4 permitted to be used. You can't play these games and then
5 later get away with it.

6 And, secondly, that the jury be instructed to
7 disregard their prior view of them.

8 THE COURT: What are the -- what is the underlying
9 data in the spreadsheets? Is it not data that
10 Ms. Frederiksen-Cross relied on?

11 MR. OPPENHEIM: So, Your Honor --

12 MR. BRODY: Yes, Your Honor --

13 THE COURT: Stop, stop, I'll give you the
14 opportunity.

15 MR. OPPENHEIM: So all of the -- I'll answer the
16 question. The spreadsheets -- the demonstratives that they
17 intend to use rely on spreadsheets and other data, so, for
18 instance, hard drives and other things, all of which we intend
19 to use with MarkMonitor.

14:04:48 20 THE COURT: So you have no objection to that?

21 MR. OPPENHEIM: To the underlying data in exhibits,
22 absolutely not. And they should be admitted. And they should
23 have agreed this morning to stipulate to them.

24 Instead, they said no, let us talk about it, let us
25 talk about it. I have asked them three times. Let us talk

1 about it. And they should have an opportunity to talk about
2 it.

3 But what they really were trying to do was play a
4 game with it. And this, as you said, Your Honor, is not
5 supposed to be a game of gotcha. And that's exactly what they
6 did.

7 THE COURT: Okay. All right. Thank you.

8 Mr. Brody.

9 MR. BRODY: Thank you, Your Honor.

14:05:22 10 THE COURT: Well, you haven't heard anything I'm
11 going to say, but go ahead for "thank you."

12 MR. BRODY: What we did was run these searches last
13 night -- or actually yesterday, I guess, and captured
14 screenshots of the results of the search. We intended to offer
15 those as exhibits and to examine her on them. We will not use
16 them. There is no reason -- I mean, we'll simply use the live
17 spreadsheet.

18 But all we did was make a callout of the underlying
19 exhibit, which we do all the time. And I really -- there was
14:06:15 20 no deceit intended. It was just meant to expedite the process.
21 That, obviously -- that, obviously, was not successful.

22 So we'll just use the native spreadsheets, and that's
23 fine. And we will go back and do stuff that was done before in
24 the native spreadsheet so there will be no surprise, no harm.
25 It's going to come up the same way.

1 THE COURT: What manipulation did you do of the
2 spreadsheets, the information in the spreadsheets?

3 MR. BRODY: We did -- may I tender a copy of one of
4 them to Your Honor?

5 THE COURT: Sure.

6 MR. BRODY: So this is --

7 MR. OPPENHEIM: Why don't you give him the whole
8 packet?

9 MR. BRODY: He can have the whole packet, but that's
10 the one that the jury saw.
14:07:09

11 THE COURT: So the underlying data here is from one
12 of the spreadsheets that have been produced by MarkMonitor.
13 You've looked at them. You've looked at them.

14 MR. BRODY: Exactly.

15 THE COURT: The experts have all looked at them. And
16 you called out Lady Antebellum --

17 MR. BRODY: If you do the search -- yeah. If you do
18 the search that is shown in that box, that box comes up, and
19 the results that are shown there come up.

20 THE COURT: Okay.

21 MR. BRODY: And it goes to the row -- there is going
22 to be a little green box around what is, as is shown, around
23 what's highlighted in yellow. And we added yellow
24 highlighting, and we added a gray bar across just to call out
25 that row.

1 THE COURT: All right.

2 MR. BRODY: And, you know, there was nothing -- you
3 know, it will come up exactly the same way in a live
4 spreadsheet. And if it doesn't, then I'm going to look like an
5 idiot and I'm going to waste my time.

6 But that really was the intent, was simply to call
7 out the evidence and do this as efficiently as possible. But
8 we'll do it the other way.

9 THE COURT: All right. And --

14:08:16 10 MR. BRODY: Incidentally, on the stipulation issue,
11 we are still happy to do that. We did have an open issue that
12 we wanted to resolve, and I have got an answer for him, but we
13 haven't, obviously, had that discussion.

14 THE COURT: Well, what's going to happen with the
15 next spreadsheet that you want to put up? Is it going to be
16 objected to if it's in its native form? Or do we at least
17 have -- agree that the spreadsheets in native form are
18 admissible?

19 How could they not be admissible? If everybody has
14:08:47 20 looked at them and they are coming out of MarkMonitor's
21 documents, everybody is going to use them, what objection could
22 there be to -- and the experts are both relying on them?

23 MR. OPPENHEIM: Your Honor, I couldn't agree more,
24 they are admissible. He's not trying to admit them. He is
25 trying to use them for impeachment, show them to the jury, and

1 not allow us to use them. I don't know how he's going to keep
2 them out.

3 But, to me, it's like, why? Just agree to admit
4 them. And let's not play games here. Admit them --

5 THE COURT: So --

6 MR. OPPENHEIM: I have no idea if the searches are
7 going to come up like this or not because I haven't had a
8 chance to look.

9 THE COURT: Okay.

14:09:26 10 MR. OPPENHEIM: But based on what's happened today,
11 I'm not confident.

12 THE COURT: All right.

13 MR. BRODY: So far as the spreadsheets go, Your
14 Honor, we are willing to stipulate to the three spreadsheets.

15 We have an objection to the hard drive coming in, in
16 part based on her testimony just now. And there were two other
17 exhibits that Mr. Oppenheim asked me about that I think we can
18 do a stipulation on. But we just haven't --

19 THE COURT: So you're just going to use the three
14:09:52 20 spreadsheets that you agree can come in; is that right?

21 MR. BRODY: Exact -- I mean, the '431 is subject to
22 all of our objections. But, yes, that's all we'll use.

23 THE COURT: All right. Then we'll get --

24 MR. BRODY: Okay. Thank you.

25 THE COURT: We can -- we can move forward based on

1 the fact that the spreadsheets in their form as produced can
2 come in. You know, the biggest problem here is you all have
3 been fighting with each other for a year, and the level of
4 distrust is a product of just spending too much time as
5 advocates against each other, I think for the most part.

6 So it's a complete breakdown in communication because
7 you can use the native piece.

8 MR. BRODY: Yes.

9 THE COURT: You could have your exhibit -- you could
10 have your witness ask to highlight something on the exhibit and
11 use it if you had done it step by step and plaintiffs
12 understood where all of this was coming from, at least that
13 would be my rulings. Of course, you can use and highlight the
14 information that you want.

15 So what we're talking about is a -- is a real failure
16 to communicate, and also to identify what's a demonstrative and
17 what isn't. And that needs to be done. And that needs to be
18 done before you get up and take the podium and start with your
19 examinations. Okay? On both sides. Okay?

14:11:29 20 MR. BRODY: I couldn't agree more, Your Honor. And
21 I -- well, I'm going to move ahead.

22 THE COURT: Okay. All right. Mr. Buchanan, pulse
23 checks. I mean, we've dealt with this. I indicated I wasn't
24 going to listen to the discovery abuse side of it. But what in
25 addition did you want to address?

1 MR. BUCHANAN: Again, Your Honor, in your order you
2 said that you weren't going to exclude them at this time. You
3 would consider it at trial.

4 THE COURT: Yes, because I wanted to see what
5 foundation was laid and whether they were credible, admissible,
6 reliable type of documents. And I didn't have enough
7 information just based on Lehr having -- and McGarty, I guess,
8 having relied on them. So --

9 MR. BUCHANAN: So in terms of expert testimony,
10 14:12:21 neither expert mentioned pulse checks in their expert reports.
11 They mentioned them during their testimony.

12 THE COURT: Depositions?

13 MR. BUCHANAN: Mr. Bahun, I believe, testified about
14 them. And he's the individual that I have called him as a
15 sales representative, not the technical guy, which is
16 Mr. Paszkowski. But whatever he is, he is going to testify
17 soon. I think he's going to come in and say, hey, this is not
18 the limit of the infringement on the Cox network. You know, we
19 would do these pulse checks, where we would go out and search
20 14:12:57 these peer-to-peer networks, and we would try to identify if
21 there was activity at a certain level that would indicate there
22 is potential infringement, and we could look at the IP
23 addresses and see and link those up with further investigation
24 to a particular --

25 THE COURT: And he's a fact witness, not an expert

1 witness?

2 MR. BUCHANAN: He is a fact witness.

3 THE COURT: Okay.

4 MR. BUCHANAN: And so, he testified, as I recall, I
5 have some excerpts about these. And what he said is, it was
6 sort of a very low level activity that they would pick up, not
7 enough on any industry standard to send a notice. It is
8 something below that. So we have no documentation of it.

9 There is no expert that analyzed pulse checks that
10 testified about what they mean. It's just this individual
11 salesperson, you know, that -- and I think that's what he was
12 using. I'm not degrading the guy. That's what he said. The
13 question was: What is your position? He goes: I'm a sales
14 guy. He's marketing.

15 I think they used this to reach out and say, look, we
16 have got some activity. Do you want us to do some more
17 investigation? I am not sure.

18 But -- so it doesn't relate to the works in suit. It
19 doesn't relate to the plaintiffs. It relates to Cox,
20 allegedly. It is not limited to the time period in question.
21 It is not limited to copyrighted works. It doesn't involve
22 those. It involves music and film and television.

23 And so, it's all sorts of things that are not even
24 part of the case. And no documentation was produced.

25 Now, they will say, well, we didn't ask MarkMonitor

1 for it. We asked them for a lot. And they said --

2 THE COURT: Yeah, don't go there.

3 MR. BUCHANAN: Okay. All right. We had a fight over
4 that. But the idea is, if we said give us information beyond
5 the works in suit, there was no way we were going to get that
6 from MarkMonitor.

7 THE COURT: Okay. All right. Thank you.

8 Mr. Gould.

9 MR. GOULD: Thank you, Your Honor. I want to start
10 with your order on this, which was ECF No. 590. On page 3 you
11 answered it this way: Pulse checks are not excluded at this
12 time. The Court will consider any further objections at trial.

13 What we just heard here was not a further objection.
14 It was a recycled --

15 THE COURT: Yeah. I want to know how you're going to
16 get it in. Which is why I said what I did very inartfully, as
17 I do far too often, I am sure. But how is a fact witness going
18 to identify -- and is he just going to talk generally about
19 what it is? Is he qualified to do that?

14:14:51 20 I know you disagree with Mr. Buchanan about the
21 characterization of his role in the business. So tell me that.

22 MR. GOULD: So let's start there. Cox likes to
23 characterize him as a sales guy. It is part of his job. We
24 talked about this a little bit. You are going to hear from him
25 after Ms. Frederiksen-Cross. Mr. Bahun has material roles at

1 this company --

2 THE COURT: Yeah, I remember.

3 MR. GOULD: -- that includes sales.

4 THE COURT: I remember your --

5 MR. GOULD: He does things like FBI and DoJ training
6 for piracy efforts to protect and avoid distribution of child
7 pornography. This is not just a guy who's going door to door,
8 looking --

9 THE COURT: But, see, he's not an expert, though,
10 right? Are you going to try to qualify him as an expert?
14:16:15

11 MR. GOULD: No. He's going to testify about what
12 MarkMonitor actually did from a factual matter.

13 THE COURT: Okay.

14 MR. GOULD: MarkMonitor performed analysis by
15 observing peer activity, observing in the swarms, and observed
16 materially greater levels of peer-to-peer infringement,
17 infringing indicative behavior by Cox subscribers for years on
18 a daily basis, monumentally higher than what we've seen here.

19 THE COURT: But how is he going to be -- what is he
14:16:49 20 going to rely on?

21 MR. GOULD: Personal knowledge.

22 THE COURT: Having done what? I mean, reviewed what?

23 MR. GOULD: Having been a part of those programs and
24 reviewed and understood that --

25 MR. OPPENHEIM: I can offer a little more detail,

1 Your Honor, since I'm going to present the witness, if you'd
2 like.

3 THE COURT: Yes, sir.

4 MR. OPPENHEIM: One of the documents you're going to
5 see is an attachment to an RIAA/MarkMonitor contract. And that
6 attachment shows the anticipated volume of notices for each
7 ISP.

8 And one of the things that's going to jump out, Your
9 Honor, is you're going to see that Cox has a woefully low
10 number compared to other ISPs of relative size.

11 And that -- when you ask Mr. Bahun, well, why is
12 that? Because of CAS. Well, how did you decide on -- how did
13 the other numbers get arrived at? Well, we do pulse checks,
14 and we provide that data to our customers and have a
15 discussion.

16 And he will describe what the pulse checks showed for
17 Cox and what -- and how it compared to the others. And how
18 that Cox number is so low compared to everything else. It is
19 all based on his personal knowledge, his personal experience,
20 and what he does day in/day out.

21 So the -- and you can keep -- Cox will keep saying,
22 he's a sales guy. Yes, he's technically in the sales
23 department, that's correct. But he's the guy who Homeland
24 Security calls in to help with money laundering cases. This
25 guy has great, great experience in the field.

1 THE COURT: Okay. Mr. Buchanan.

2 MR. BUCHANAN: So if -- what is interesting is that,
3 at least the first time I heard this, and I didn't take the
4 MarkMonitor deposition or Mr. Bahun's, was it was tossed out to
5 me during the depositions of Mr. McGarty and Lehr when I was
6 asking about the infringement, he goes, oh, but you don't know
7 there's these pulse checks out there. And I asked them about
8 it. And they didn't really quite understand it because I think
9 they have just been fed the information.

14:19:04 10 But I think you heard something interesting here. He
11 said, he's a sales guy, they admitted that. He goes out to the
12 FBI and Home -- he talks about piracy and things like that.
13 Sort of like Marks and the IRA -- the RIAA guy. He's out there
14 doing marketing, promoting. That's fine.

15 Then they said he has this data, okay, and that
16 there's data that he relies on. He's not doing the analysis.
17 He's not doing the searches. He's not sending the notices.
18 RIAA is doing that.

19 So he -- where is the data? We don't have all this
14:19:33 20 data. So in other words, for -- to be fair, if they were
21 really going to use this, it was so important, one, you know, I
22 don't want to get into MarkMonitor, but they would have said,
23 look, MarkMonitor, give us this pulse check stuff and we'll
24 produce that because we want our experts to rely on it, and we
25 want to rely on it, and we want to put a witness on for it, you

1 know.

2 And it's sort of being sandbagged here, is that, you
3 know, if we're fighting this third party and they won't give it
4 to us, and they say it's really important and valuable, and
5 they had it, why didn't they, meaning the plaintiffs, give it
6 to us in discovery? Because we certainly had discovery
7 requests to them that would've covered this.

8 THE COURT: All right. Okay. I'm going to allow the
9 witness to testify. And let's see where it goes. And I'm
10 mindful of your objections. I'm -- I will be looking closely
11 to make sure that he's not giving expert testimony. And when
12 you're dealing with this area, it's not a black and white line.

13 But your exception is noted.

14 MR. BUCHANAN: Thank you, Your Honor.

15 THE COURT: And you -- if you believe we've gotten to
16 a stage where you should make further objections, I'll
17 certainly hear those as well.

18 MR. BUCHANAN: Okay. Can we just make sure that a
19 foundation is laid about his job, and then what he does, and
20 this data, and whether he actually analyzes it himself, and --

21 THE COURT: Yeah. I expect that we'll go through
22 what he does in his work there, and why he is familiar with
23 pulse checks, and how he is familiar with them, and what he
24 uses them for, and how they relate to the evidence in this
25 document that Mr. Oppenheim just referred to.

1 MR. BUCHANAN: Okay. Thank you, Your Honor.

2 THE COURT: All right. Thank you.

3 All right. Are we ready for the jury then?

4 All right. Joe, let's get our jury, please.

5 Oh, and we can get our witness now, if you would, as
6 well.

7 NOTE: At this point the jury returns to the
8 courtroom; whereupon the case continues as follows:

9 JURY IN

14:22:11 10 THE COURT: All right. Please have a seat.

11 All right. I hope you found that coffee that you
12 were looking for. Sorry for the delay. We were out here
13 working. If you couldn't hear us singing and yelling, that --
14 I'm sorry to delay our afternoon session.

15 All right. Let's get our witness back and we'll
16 continue. Here we are.

17 All right. Good afternoon. I hope you had a good
18 lunch.

19 And please go ahead.

14:23:05 20 MR. BRODY: Thank you, Judge.

21 BARBARA FREDERIKSEN-CROSS, called by counsel for the
22 plaintiff's, having been previously sworn, continues to testify
23 and state as follows:

24 CROSS-EXAMINATION

25 BY MR. BRODY: (Continuing)

1 Q. All right. Let's try it again.

2 A. Yes.

3 Q. And if I can't get it right this time, we'll just move on
4 to something else.

5 Could you please bring up Exhibit -- Defendant's
6 Exhibit 141, please.

7 Okay. This is the Audible Magic spreadsheet.

8 Now -- oh, good. You've copied and pasted SHA-1 hash
9 HC1EDC5EFE3FA552B56B6C97F8DC1000ADDF1791; is that -- do you see
10 that?

11 A. I see that he has typed that in. I didn't --

12 Q. To the best of --

13 A. I didn't follow every character. But I see that he's
14 typed it in, yes.

15 Q. Okay. Can you hit the "find next," or "search," or
16 whatever it is? Okay. And it is behind -- there it is. Can
17 you scroll down a little bit? There we go.

18 Now, can you go to the right on the screen? Just --
19 yeah, there we go.

14:24:27 20 Okay. Now, the three columns on the right, there's:
21 Audible Magic info ID.

22 And you understand that's a code that MarkMonitor
23 enters to identify each return that it gets from Audible Magic,
24 right?

25 A. That's my understanding, yes.

1 Q. Yeah. And then: Artist and track.

2 That's information that Audible Magic sends to
3 MarkMonitor and, not surprisingly, it identifies the artist and
4 the track associated with that hash, right?

5 A. That's correct.

6 Q. Okay. Can we bring up the search box again?

7 And the artist and track that are identified here are
8 Lady Antebellum and "Need You Now." Okay.

9 Can we do another search on that hash? Yeah, so go
14:25:27 10 control F and search -- I want to find the next item in the
11 spreadsheet that has the same hash.

12 All right. Well, go to -- oh, I'm sorry, go to
13 Gnutella. There's a tab down there that says: Gnutella.

14 There you go. Okay. Now do the same search. Okay.
15 And can we scroll over to the right again? Oh, I can -- you
16 can see it here.

17 The artist and track that come up in Gnutella is Tia
18 Ray, that's the artist, and the work is "Do You?"

19 Do you see that?

14:26:10 20 A. I see that, counsel.

21 Q. And what happened was we searched on one SHA-1 hash and we
22 got two different works, right?

23 A. If --

24 Q. Two different artists, two different tracks?

25 A. Or at least we got two different identifications.

1 Q. Yes.

2 A. I would want to listen to the tracks to see if they were
3 actually the same and one was mislabeled or --

4 Q. Well, something is wrong. It shouldn't work that way,
5 right?

6 A. There does appear to be some error here, yes, counsel.

7 Q. Okay. Let's try another one. And 141 -- by the way, do
8 you know how many times something like that happened? How many
9 times Audible Magic returned different tracks for the same
10 SHA-1 hash?

11 A. No. I would want to check if that SHA-1 in the Gnutella
12 is the same SHA-1. There's a SHA-132 and a SHA-1. If it was
13 the same, which SHA-1 it was because it's not labeled clearly.

14 Q. Yeah, we searched on the same SHA-1 hash, ma'am.

15 THE COURT: Let her finish -- let her finish her
16 answer before you ask the next question.

17 MR. BRODY: I apologize.

18 THE COURT: All right.

19 THE WITNESS: Well, I was just saying, there are two
20 different ways of calculating SHA-1. One is SHA-132 and one is
21 SHA-1. And I would want to see if both of those represented
22 the same type of SHA-1 calculation. But this is very
23 interesting.

24 BY MR. BRODY: (Continuing)

25 Q. Yeah, we searched on the same SHA-1 hash, the one that you

1 told us would change if you even deleted a space in the
2 program. You saw we did that twice and we got two different
3 songs, right?

4 A. Right. That's why I'm saying I would like to see if they
5 were the same SHA-1 calculation. If the same formula is used,
6 it should generate the same value for the same.

7 Q. So they're --

8 A. But I am aware that there are two different types of SHA-1
9 calculation. And that one of the peers uses a SHA-132. And as
10 I sit here, I do not recall if that's Gnutella. It's not
11 BitTorrent.

12 Q. Can we go back -- do we have Gnutella up? Can you go back
13 to Gnutella, please? And can you do the search again?

14 Okay. Can we move that search box away.

15 Okay. The search came up in the SHA-1 hash column.
16 Do you see that?

17 A. I see that, yes. And seeing this is helpful.

18 Q. Right next to the hash column is the SHA-1 hash base 32
19 column, right?

14:28:55 20 A. I see that, yes.

21 Q. So we search on the same SHA-1 hash in both spreadsheets
22 and we got two different works?

23 A. I see that. That's quite surprising to me.

24 Q. Okay. And my question to you was, do you know how often
25 that happens in these spreadsheets?

1 A. I'm surprised that it happens at all, counsel.

2 Q. So the answer is, you don't know how often it happens?

3 A. I don't know. I would need to run a little calculation
4 and write a little program to figure that out.

5 Q. Okay. Okay. So let's go back to BitTorrent.

6 And I want to search on this hash,

7 F041CF7EEFD3DB7CB5D0F5F0FE71E7ECEC4025EA.

8 Oh, I'm sorry. We need to be in eDonkey for this
9 one.

14:30:04 10 And that work is Lady Gaga, "Poker Face," right?

11 A. I see that, yes.

12 Q. Okay. Oh, here it is.

13 Can you go to the hard drive spreadsheet? I think
14 that's Exhibit 213.

15 MR. OPPENHEIM: Is that now admitted?

16 MR. BRODY: Yes, I mean, we're fine with admitting
17 it.

18 THE COURT: The hard drive?

19 MR. BRODY: Yes.

14:30:46 20 THE COURT: Is that what you just said? All right.
21 It's admitted.

22 MR. BRODY: We're fine with admitting the hard drive,
23 the Audible Magic, and the notice spreadsheets, the Audible
24 Magic, subject to our objections.

25 THE COURT: All right. Yeah, and just for the

1 record --

2 MR. BRODY: The hard drive spreadsheet. We have an
3 objection to the hard drive.

4 THE COURT: Well, I'm sorry. I thought you just said
5 you were agreeing to admit the hard drive.

6 MR. BRODY: So -- I'm sorry.

7 THE COURT: Is it a different hard drive?

8 MR. BRODY: There's a hard drive spreadsheet and
9 there's the hard drive itself. The spreadsheet, we will agree,
10 is an accurate index of what's on the hard drive.

11 We have an objection to admitting the hard drive
12 because we believe it's an incomplete exhibit. But we haven't
13 gotten there yet.

14 THE COURT: All right. Can you give us the actual
15 exhibit numbers so that we can identify them?

16 MR. BRODY: Sure. So what I was saying was that we
17 were agreeable to the admission of Defendant's Exhibit 141 -- I
18 am sorry, I don't have the plaintiffs' numbers down here --
19 Defendant's Exhibit 141, which is the Audible Magic
20 spreadsheet.

21 THE COURT: All right.

22 MR. BRODY: Defendant's Exhibit 213, which is what I
23 will call the hard drive spreadsheet.

24 And Exhibit 161, which is -- Defendant's Exhibit's
25 161, which is what I will call the notice spreadsheet.

1 THE COURT: All right. Those are received.

2 All right. Now, go ahead.

3 MR. BRODY: So Exhibit 213, can you search on that
4 SHA-1. Can you scroll that up a little bit? Okay.

5 BY MR. BRODY: (Continuing)

6 Q. Now, in the Audible Magic spreadsheet, that came up as
7 Lady Gaga, "Poker Face." Do you recall that?

8 A. I didn't memorize the Bates number, but if you're
9 representing that to me, then I think that's fine.

14:32:47 10 Q. Yeah, I think that's what we saw just about two minutes
11 ago. And the hard drive spreadsheet, it's not Lady Gaga, it's
12 Taylor Swift, "Love Story," right?

13 A. I see that that's what's here, counsel.

14 Q. And it's got the same SHA-1 hash that we searched on in
15 the other spreadsheet?

16 A. I also see that.

17 Q. Okay. Let's go back to the Audible Magic spreadsheet.
18 And that is Exhibit 141, I'm sorry. And let's search on this
19 hash. 9FC9FC7FA194A -- oh, by the way, before we do that, do

14:33:40 20 you know how many times in the Audible Magic materials the
21 SHA-1 hash gave you one answer on the Audible Magic spreadsheet
22 and a different answer on the hard drive?

23 A. I do recall seeing that in the hard drive where the song
24 was mislabeled, there were one or two occasions where, you
25 know, were matching there not against the Audible Magic

1 returned data, but the name of the song as a person named it
2 when it was put in the torrent. Which means some human created
3 torrent with that name. And I did identify one or two songs on
4 the hard drive that were misnamed.

5 Q. The question, was, ma'am, do you know how often that
6 happened?

7 A. I don't -- as I am sitting here, I have any recollection
8 of how often it happened, no.

9 Q. Thank you.

14:34:25 10 A. I just remember identifying that issue with the naming of
11 the songs.

12 Q. Ms. Frederiksen-Cross, I always enjoy my time with you,
13 but regrettably I often spend more of it than I would like to.
14 So if you could just stick with yes or no, I would really
15 appreciate it.

16 MR. ZEBRAK: Your Honor, this is highly
17 inappropriate. She has been trying to answer his questions,
18 and he keeps interrupting her, and now is scolding her.

19 THE COURT: Both of you stop commenting on the
14:34:46 20 evidence and framing it the way you want to frame it.

21 As we spoke earlier today, if you can answer a
22 question yes or no, please try. And if you can't answer it as
23 asked, say, I can't answer it that way.

24 THE WITNESS: Okay.

25 THE COURT: And then your counsel on redirect will

1 amplify your earlier answer if he believes that it needs
2 further explanation. All right?

3 THE WITNESS: Yes.

4 THE COURT: Thank you.

5 All right, go ahead.

6 MR. BRODY: Thank you, Judge.

7 BY MR. BRODY: (Continuing)

8 Q. All right. Let's go back to this third hash.

9 9FC9FC7FA194A7D98E5C76E2AE9A4EA30E703167. Okay.

14:35:45 10 And what that gets us in the Audible Magic
11 spreadsheet is Tammy Wynette, "Stand by Your Man."

12 That's what was returned by Audible Magic, right?

13 A. Yes, that's in the Audible Magic artist and track.

14 Q. Okay. Can you go over to the column that is labeled --
15 not so fast: Info Hash. Click that. Can you copy that into
16 the search box?

17 And can we go to the notice spreadsheet, that is
18 Exhibit 161.

19 So we have got Tammy Wynette, "Stand by Your Man,"
14:36:49 20 right?

21 A. As being the first file on that group, yes.

22 Q. Well, it's not just the first file, it is a SHA-1 -- a
23 SHA-1 hash identifies a song, a work, it doesn't identify the
24 entire torrent, right?

25 A. I think this was the info hash, counsel, which --

1 Q. Let's go back and do it again.

2 A. Okay. I am sorry --

3 Q. We did the SHA-1 hash and that got us Tammy Wynette, do
4 you remember?

5 A. I do remember you used the SHA-1 hash to locate Tammy
6 Wynette, and then --

7 Q. Used the SHA-1 hash to locate --

8 THE COURT: Hold on, hold on. You both can't talk at
9 one time.

14:37:22 10 MR. BRODY: I apologize, Your Honor.

11 THE COURT: Well, it just keeps happening over and
12 over again. So let's -- you're in control of questioning.
13 Either object to her answering or let her answer.

14 MR. BRODY: Okay.

15 THE COURT: Let her finish.

16 MR. BRODY: Okay.

17 BY MR. BRODY: (Continuing)

18 Q. We searched on the SHA-1 hash in the Audible Magic
19 spreadsheet and we found Tammy Wynette, right?

14:37:44 20 A. That's my recollection, yes.

21 Q. Okay. Now, we're copying the info hash, and we are going
22 to use that to search in another spreadsheet. Okay?

23 A. Okay.

24 Q. All right. Let's go to the other spreadsheet.
25 Exhibit 161, the notice spreadsheet.

1 Can we search on that hash? And you've done that.

2 And the file name on that spreadsheet -- I am
3 sorry -- the title and artist on that spreadsheet is "Lovely
4 Day" by Bill Withers, right? It's columns --

5 A. Yes.

6 Q. -- F and G?

7 A. Yeah, I see that that was the -- that that's what's in F
8 and G.

9 Q. Okay. So that means that the work that was identified in
10 that notice was Bill Withers, not Tammy Wynette, and they are
11 different people?

12 A. The problem I am having with this, counsel, is that we
13 have switched hashes and we have gone from the identification
14 of a specific song to the identification of a torrent. And
15 what I would -- and we see that these are both for the same
16 torrent.

17 Q. Fair enough.

18 THE COURT: Okay.

19 Q. Can you search on that hash again?

14:38:38 20 Do the search -- James, do the search on the --

21 MR. OPPENHEIM: Your Honor, can we approach?

22 THE COURT: Yes, sir.

23 NOTE: A sidebar discussion is had between the Court
24 and counsel out of the hearing of the jury as follows:

25 AT SIDEBAR

1 THE COURT: Yes, sir.

2 MR. OPPENHEIM: I just noticed that the last
3 spreadsheet that defense counsel brought up, which he said was
4 the defendants' exhibit and was the native file, I looked at
5 the bottom and there is a tab on it which says: 48-hour test.

6 MR. BRODY: Well, I am not going to go to that one.

7 MR. OPPENHEIM: That is not part of the exhibit, and
8 it is in front of the jury. It's --

9 THE COURT: Is the data that she is looking at the
10 data that is from the exhibit?
14:40:26

11 MR. OPPENHEIM: I am certainly -- I'm sorry. Now I
12 am interrupting you.

13 THE COURT: Okay. That's a question for you.

14 MR. BRODY: Yes. It's the exhibit. What was
15 apparently put up there is -- in a working copy I added a tab
16 where I did some work of my own.

17 But what is on the screen is the exhibit. I will put
18 up any copy you want. If you want me to put up a plaintiffs'
19 exhibit, I will put it up. It is the same thing.

14:40:52 20 MR. OPPENHEIM: I shouldn't have to play policeman on
21 exhibits being correct.

22 THE COURT: I understand. Are you about done with
23 this?

24 MR. BRODY: This is the last one and then we are done
25 with the spreadsheets.

1 THE COURT: Okay. Then I will allow it. And your
2 exception is noted.

3 And let's not do this moving forward. Okay?

4 MR. BRODY: Okay.

5 NOTE: The sidebar discussion is concluded; whereupon
6 the case continues before the jury as follows:

7 BEFORE THE JURY

8 THE COURT: Okay. Go ahead.

9 BY MR. BRODY: (Continuing)

14:41:42 10 Q. Okay. Can you do the search again?

11 A. Excuse me, counsel, which hash is this, the info hash or
12 the --

13 Q. This is the info hash.

14 A. Okay.

15 Q. Can you click on "find all"? Can you expand that all the
16 way?

17 Okay. Those are all the info hashes, all the notices
18 with that info hash. Do you see? Do you see they are all Bill
19 Withers?

14:42:08 20 A. I don't see where you are looking at that you see that
21 they are all Bill Withers. That may not be visible on this
22 search.

23 Q. I see. Okay. Shrink the box and just click "find next."
24 No, no, no. Where it says -- there is a box that says "find
25 next." There you go. Bill Withers. Click again.

1 A. I see that.

2 Q. Bill Withers. Click again. Bill Withers. Click again.
3 Bill Withers. Click again.

4 There are 39 of them. I will represent to you that
5 they are all Bill Withers.

6 A. Okay. I will accept your representation.

7 Q. Now, the way the Audible Magic -- I'm sorry -- the
8 MarkMonitor system is built -- well, strike that.

9 Let me ask you about some structural issues with the
14:43:28 10 MarkMonitor system. Can we put up -- can we put up slide 14
11 from Ms. Frederiksen-Cross' direct.

12 Now, this is your three modules. There is the
13 verification module, and the detection module, and
14 notification. I want to focus for a second on the first two.

15 A. Okay.

16 Q. So verification module, that's where MarkMonitor goes out
17 onto the Internet, a peer-to-peer network, finds the song,
18 sends it off to Audible Magic for verification, right?

19 A. Correct. And then gets back a response and stores it
14:45:04 20 away.

21 Q. And then the detection module, that's where the song is
22 sent to -- the information about the song is sent to
23 MarkMonitor's, what they call their collection agents. And
24 they go out on the peer-to-peer networks and they try to find
25 people who are sharing that song, right?

1 A. The detection module searches for a particular hash, yes.

2 Q. Okay. Well, what I really wanted to focus on is where it
3 is searching. It is going out to the peers, to the people in
4 the peer-to-peer network, right?

5 A. Right, with the info hash or hash of the song.

6 Q. And if it hits on a Cox subscriber, that's the point in
7 the process where a Cox subscriber gets involved or caught up
8 in the search?

9 A. Sure.

14:45:52 10 Q. Yeah. Now, the detection module and the verification
11 module operate in parallel, right?

12 A. They are separate systems, yes. So I don't know what you
13 mean by in parallel. But they operate separately, they are not
14 synchronous tasks.

15 Q. What I meant by parallel -- and maybe this is what you
16 meant -- was that the collection module to go out -- that goes
17 out and looks for Cox subscribers and other people who are
18 supposed to be infringers, it doesn't wait for Audible Magic to
19 report back on the song? It -- it goes out and searches the
14:46:40 20 peers before the Audible Magic verification is completed,
21 right?

22 A. That's correct. It's just not eligible for notice until
23 it's been verified.

24 Q. Well, that's certainly the theory. But let's take it one
25 step at a time.

1 Isn't it the case that the detection module starts
2 searching peer-to-peer computers for the presence of a file
3 before MarkMonitor knows whether Audible Magic has made the
4 match?

5 A. It starts searching for a file. At that point in time
6 MarkMonitor may or may not know depending upon when in the
7 relative time periods the confirmation from Audible Magic has
8 come back. So it may know or it may not at that point in time.

9 Q. So it -- if it may not know, then that means that it
10 doesn't depend on Audible Magic actually concluding that
11 search?

12 A. For the detection module, that's correct.

13 Q. Okay. Now, you're aware that doing it that way results in
14 the collection of thousands of files that are later determined
15 not to be infringing works?

16 A. I think that could be true. I mean, they might be
17 somebody else's infringing works, or they might not be
18 infringing works at all.

19 Q. And you understand, don't you, that that increases the
14:48:20 20 chances that notices will be generated for non-infringing
21 works?

22 A. That is not my understanding of the operation of the
23 system, counsel.

24 Q. Okay. Can we bring up Defendant's Exhibit 130, please.
25 And can we go to HL -- can you go to the end of the exhibit?

1 Go up a page, up one more page. And can you blow up paragraph
2 2?

3 Now, this is the Stroz Friedberg report that we heard
4 about from a previous witness, and this is one of the things
5 that you reviewed, right?

6 A. That is correct.

7 Q. And Stroz Friedberg was hired by RIAA to sort of audit the
8 MarkMonitor system to see whether it was doing what it was
9 supposed to do? Do you understand that generally, right?

14:49:34 10 A. Yes, I do.

11 Q. And they made a number of recommendations at the end of
12 their report, and this is one of the recommendations, right?

13 A. I believe this is in the Recommendation section, yes.

14 Q. And what they said was: In the current model, MarkMonitor
15 deploys all instances of in-scope work to its collection
16 agents, regardless of whether or not that file has been
17 verified as an infringing work.

18 Do you see that?

19 A. I see that.

14:50:02 20 Q. And that's what we were just discussing. That means that
21 the collection agents go out to the peer computers, including
22 the Cox subscribers, regardless of whether Audible Magic has
23 returned a match on a particular file?

24 A. That is my understanding as well.

25 Q. And then they say: This is an efficient approach as the

1 agents can start searching for and identifying content
2 immediately. However, it also results in the collection of
3 thousands of files that are later determined not to be
4 infringing works.

5 And that's what we just agreed was the case, right?

6 A. I would agree that that could happen if they're not
7 somebody else's infringing works, sure.

8 Q. Then they say that: Though there are subsequent steps in
9 place to ensure notices are only generated on verified
10 infringing works, collection by the agents of these
11 non-infringing works introduces inefficiency into the process
12 and increases the chances that notices will be generated for
13 non-infringing works.

14 Do you see that?

15 A. I see that.

16 Q. And you understand that was Stroz Friedberg's finding?

17 A. I understand that that was their finding, yes.

18 Q. Okay. Let's talk about Audible Magic matching.

19 Now, you told me earlier that MarkMonitor did Type 1
20 and Type 3 matching, and you weren't quite sure of the mix?

21 A. I'm not quite sure of the mix, that's correct.

22 Q. Okay. Now, you understand -- and what they did was they
23 took a 20-second clip --

24 MR. ZEBRAK: Your Honor, this is a misstatement of
25 the evidence. He said MarkMonitor as --

1 MR. BRODY: Oh, I apologize.

2 THE COURT: Okay.

3 MR. ZEBRAK: Excuse me, sir.

4 THE COURT: All right. Thank you for that. Rephrase
5 your question.

6 MR. BRODY: Yes, yes. Absolutely.

7 BY MR. BRODY: (Continuing)

8 Q. Well, Audible Magic did Type 1 and Type 3 matching in
9 response to the MarkMonitor inquiries sent on behalf of RIAA,
10 right?
14:52:06

11 A. That is my understanding, yes.

12 Q. Okay. And you -- I think you told us that the matching
13 that Audible Magic did was to use a 20-second clip that starts
14 a few seconds past the beginning of the recording, right?

15 A. I believe that's correct, yes.

16 Q. Okay.

17 A. About eight seconds, if I recall the precise number.

18 Q. I'm sorry. I didn't --

19 A. I think it's about eight seconds past the beginning of the
20 clip, if I recall.
14:52:39

21 Q. Okay. Now, I've got a couple of questions about that.
22 First, do you recall that Audible Magic actually thought that
23 you should be doing a 60-second clip in order to do Level 1
24 matching?

25 A. I do not recall that, no.

1 Q. I'm sorry. Actually, this is very exciting for me.
2 People usually tell me I speak too softly, but I'm having
3 trouble hearing you.

4 THE COURT: She said she does not recall that.

5 MR. BRODY: Okay. Thank you.

6 THE WITNESS: Yeah, I don't recall that. If there's
7 something you could show me to refresh my recollection.

8 MR. BRODY: Okay. Could we bring up Defendant's
9 Exhibit 8, please.

10 BY MR. BRODY: (Continuing)

11 Q. Let me -- before I do that, one of the things that you
12 reviewed in doing your work was the Audible Magic programming
13 guide. It's a technical document that they sent to their
14 customers explaining how to use their system.

15 Do you recall that generally?

16 A. I believe I did see that document, yes.

17 Q. Okay. Can I have leave to --

18 THE COURT: Do you have that in hard copy?

19 MR. BRODY: Do I have it in hard copy? Yeah.

14:53:55 20 THE COURT: Yeah, why don't you show it to her and
21 ask her whether she --

22 BY MR. BRODY: (Continuing)

23 Q. It should be in your --

24 A. Is it in my binder?

25 Q. Yes.

1 A. I've got it. I've got it, yeah. Thank you.

2 Q. If you go to page 5 of the document, it's Audible Magic
3 0000011.

4 MR. OPPENHEIM: Do we have a copy of this?

5 MR. BRODY: Yes, you do. It's right there, DX 8.

6 MR. OPPENHEIM: Thank you.

7 BY MR. BRODY: (Continuing)

8 Q. Have you got it?

9 A. Oh, I do see it, yes.

14:55:01 10 Q. The second paragraph there --

11 A. Yeah, I see it.

12 Q. File Identification?

13 A. Yes, I see it.

14 Q. Okay. And in --

15 THE COURT: Is this a document that you looked at
16 during your review of discovery matters?

17 THE WITNESS: I looked at an electronic version,
18 rather than paper, but it -- I believe it's the same document.

19 THE COURT: All right. Go ahead.

14:55:19 20 BY MR. BRODY: (Continuing)

21 Q. For the Type 1 matching, the basic lookup mode, it says:
22 In this mode, an application will typically fingerprint the
23 first 60 seconds of a media file for lookup.

24 Do you see that?

25 A. Yes. And then it goes on to say it selects a segment

1 within that 60 seconds to use for the lookup.

2 Q. All right. But 60 seconds, not 20 seconds, right?

3 A. Right. That's correct.

4 Q. Okay. Now, the other thing about this type of matching is
5 it's not actually properly used for -- or the types of songs
6 that it should be used for, types of media it should be used
7 for, are not peer-to-peer files?

8 A. Respectfully, I disagree with that, counsel. If you read
9 the -- what it's appropriate for, it includes, for instance,
10 files from a disk ripped from CD, which would often be the case
11 in peer-to-peer file sharing.

12 Q. Well, let's read the whole passage: For file ID
13 identification to work, that's Level 1, is critical that the
14 beginning of the unknown media sample correspond within a few
15 seconds to the beginning of the original song or video.

16 And that's critical because it has to be -- you have
17 to be within the first eight seconds, like you said.

18 A. I don't remember if it was exactly eight, but that's my
19 recollection as I sit here, yes.

14:56:48 20 Q. Whatever it is, eight, ten, five. Then it says: The type
21 of -- the type file ID is appropriate for -- the file ID is
22 appropriate for applications that need to identify audio from a
23 CD.

24 That's not a peer-to-peer file, right?

25 A. A physical CD would not be.

1 Q. DVD, that's not a peer-to-peer file?

2 A. The physical DVD copy would not be. That's correct.

3 Q. A disk ripped from CD, a DVD, or a DRM-protected file.

4 A. And that could --

5 Q. And that's not we're talking about?

6 A. No, that could be because a --

7 Q. A disk?

8 THE COURT: Let her finish.

9 A. A disk file, I read that to be a file that was on disk
14:57:29 10 that had been ripped from one of those. And ripping is just a
11 copy program that allows you to copy contents from those media
12 to disk.

13 Q. Okay. Or an Internet stream that signals the start of
14 each new play. And that's not what we're talking about either?

15 A. I don't believe we're talking about Internet streams here.

16 Q. Okay. And then Level 3, which you said some of the --
17 some of the matching used, that is appropriate -- it's over on
18 the next page -- for applications that only have an arbitrary
19 piece of the work, such as user-generated content, Web sites,
14:58:17 20 or customers that have just a portion of audio to identify.

21 Do you see that passage?

22 A. I see that passage.

23 Q. Okay. I want to talk about the download question.

24 When a -- in the detection module or the collection
25 module, when the MarkMonitor agent connects to the peer

1 computer --

2 If we could get slide 18 up. Okay. There we go.

3 When MarkMonitor connects to the peer computer, it
4 collects information off of the computer about the peer-to-peer
5 file that the peer has, right?

6 A. Right.

7 Q. The Cox subscriber?

8 A. Correct.

9 Q. And one thing you say here is that: Hash match (no need
15:00:09 10 to redownload.)

11 And what you meant by that was that MarkMonitor looks
12 to see what the hash is on the Cox subscriber's computer, it
13 downloads the hash, but it does not download any of the file,
14 right? Any of the payload, if you will, the content, the
15 music?

16 A. There were a few exceptions in the evidence I saw where
17 the connection had not been broken in time and some small
18 portion of the song was downloaded.

19 But generally the design of this system for this
15:00:49 20 particular scanning was not to download the files, that's
21 correct. To rely on the hash.

22 Q. And, in fact, both you and our expert, Mr. --

23 Dr. Feamster, you guys looked at all 175,000 evidence packages,
24 and I think there are 143 or something, 144, where there's a
25 little bit of data downloaded.

1 But all the rest of them have nothing downloaded from
2 the peer computer, no content?

3 A. That's correct.

4 Q. And I think you even told me that the MarkMonitor software
5 is written so that it assures that the MarkMonitor computer
6 will break off the connection with the peer before any content
7 is downloaded?

8 A. Well, it breaks off the connection very quickly, which
9 typically would result in that, yes.

15:01:39 10 Q. Well, but the -- I mean, it -- the -- it's designed to
11 avoid downloading content?

12 A. With the particular variant of the software that I was
13 looking at that was what was used in this case, yes, it
14 attempts to break connection very quickly.

15 Q. So if anybody said -- if I were to say to you that I
16 believe that MarkMonitor actually downloaded pieces of the
17 files on the peer computers, you would tell me I was wrong,
18 wouldn't you?

19 A. In what context?

15:02:16 20 Q. This context.

21 A. So specifically in the software as it was configured to
22 run for the RIAA in this litigation?

23 Q. Exactly.

24 A. And can you repeat back your question again? I just want
25 to make sure I was --

1 Q. Sure. If I told you or anybody told you that MarkMonitor
2 was downloading the content of the files from the peer
3 computers, not just the hash and not just, you know, the other
4 data associated with the file, but the file itself, if somebody
5 said, MarkMonitor was doing that, downloading pieces of the
6 file, you would tell them they were wrong, right?

7 A. With the exception of that little tiny fraction where the
8 connection is not broken in time that we just spoke of, they
9 would be mistaken, yes.

15:03:08 10 Q. Well, it's a little stronger than that. You looked at
11 170-odd thousand files, and none of them had any downloaded
12 content, or 143 or '4 had some, right?

13 A. There was no downloaded content present in the evidence
14 packages that I examined. I don't recall if I checked every
15 single record to see if there had been any and they simply
16 weren't a part of the package.

17 But my recollection is that aside from 143 files,
18 there was no downloaded content.

19 Q. Could we have -- one of the things you looked at in
15:03:46 20 preparing your report was a document that MarkMonitor prepared
21 for RIAA to explain how they were going to perform this work,
22 and they did it in -- I think it was April of 2012. Do you
23 recall that?

24 A. I recall looking at several documents they prepared for
25 RIAA. I'd be happy to take a look at the one you're talking

1 about.

2 Q. Okay. Do you want to look at tab 17 in your binder, DX
3 17.

4 A. A particular page, counsel?

5 Q. Well, let's, first of all, get ourselves oriented with
6 respect to the document.

7 This is something called P2P enforcement process, and
8 it says it's prepared by the Motion Picture Association of --
9 I'm sorry, prepared for the Motion Picture Association of
10 America and the Recording Industry Association of America.
11 It's dated April 11 of 2012.

12 You got that.

13 A. Yes, I see that.

14 Q. Okay. And I think you described this in your initial
15 report as a MarkMonitor document prepared for the RIAA and the
16 MPAA that describes MarkMonitor's peer-to-peer enforcement
17 process.

18 Does that sound like a fair characterization?

19 A. That would have been how I described it based on the
20 title, yeah.

21 Q. If you look at -- if you look at MM 198, it is page 10 of
22 the document, there is a section headed: P2P Data Collection
23 Agents.

24 A. I see that, counsel.

25 Q. And there is some text. And it describes the general

1 approach of the collection agent.

2 And step 3 of the general approach is: The agent
3 tries to download a piece of data from the users while
4 connected with them.

5 Do you see that passage?

6 A. Let me just read a little bit of the surrounding text to
7 get a context here, if I may.

8 Okay. I see that, counsel.

9 Q. Then it describes downloading the file from the swarm and
10 sending it to Audible Magic.

11 And then the second to the last paragraph on the page
12 reads: The agent will request only a single piece of data of
13 each individual user --

14 MR. OPPENHEIM: Can I -- just a moment. This is not
15 in evidence. We are doing again what I think we did before. I
16 thought we were trying to avoid this.

17 THE COURT: Do you recognize this document as one of
18 the ones you reviewed or --

19 THE WITNESS: I believe I have seen this document or
20 a similar document.

21 THE COURT: Direct her to the area you want her to
22 look at and ask a question instead of reading everything into
23 the record. All right? Please.

24 Thank you.

25 BY MR. BRODY: (Continuing)

1 Q. The last two paragraphs indicate that MarkMonitor was
2 going to download a piece of data and verify the hash, right?

3 A. I see that here.

4 Q. Okay. And it says the same thing -- I'm sorry. It says
5 the same thing on page MM 205, page 17, the very end. It says
6 that the data proceeds -- sorry -- the agent proceeds to
7 download data from the user.

8 THE COURT: Is there a question in there? Does it
9 say that? Is that your question?

15:09:16 10 MR. BRODY: Yes, that was my question.

11 THE COURT: Okay. If that's what it says.

12 A. I see that on the page, counsel.

13 BY MR. BRODY: (Continuing)

14 Q. So MarkMonitor told the RIAA that they would be
15 downloading data from the users, right?

16 MR. OPPENHEIM: How would she know? No foundation.

17 MR. BRODY: Your Honor --

18 THE COURT: Stop, stop, stop. If you can answer the
19 question, answer the question.

15:09:39 20 The question is, is this a MarkMonitor document and
21 does it say what Mr. Brody says it says? That's all.

22 THE WITNESS: Yes. It was prepared for the Motion
23 Picture Association of America and RIAA. And I was just trying
24 to determine if I could tell which of those two parties this
25 section was directed to, if it was specific to one or the

1 other.

2 THE COURT: All right. Move on.

3 BY MR. BRODY: (Continuing)

4 Q. You looked at the Stroz Friedberg audit, right? We talked
5 about that already.

6 A. Yes, sir.

7 Q. And you look at the Harbor Labs audit as well, right?

8 A. Yes, I did.

9 Q. And each of those was at a subsequent point in time after
15:10:19 10 this peer-to-peer piracy network, one was about six months
11 later and one was about a year-and-a-half later.

12 A. I don't recall the specific dates, but if that's your
13 representation.

14 Q. Okay. Do you recall that in both of those audits
15 MarkMonitor told Stroz Friedberg and Harbor Labs that it would
16 be downloading data from the peer computers?

17 A. I don't recall that specifically. But if you want to show
18 it to me, I am happy to take a look at it.

19 THE COURT: We are not going back through that again.
15:10:59 20 You have already gone through that testimony. We are not going
21 back through that again. If you can't --

22 MR. BRODY: My point is made and I will stop.

23 THE COURT: Okay.

24 BY MR. BRODY: (Continuing)

25 Q. I want to ask you a few questions about CATS, and then we

1 are done.

2 First of all, can we have slide 23 up.

3 When this slide was up, you talked about what
4 happened to blacklisted notices. Do you recall that generally?

5 A. I do.

6 Q. Okay. Do you understand that the notices from the RIAA,
7 from the plaintiffs here, were not blacklisted, right?

8 A. Not in the specific configuration files that I saw for the
9 version of code I looked at, that's correct.

15:12:10 10 Q. Okay. And what those files indicated was that the
11 plaintiffs' notices went through that top layer of processing,
12 reads e-mail, look up subscriber information, and so forth,
13 right?

14 A. Correct. So long as -- yeah, at this part of the
15 processing, that is correct.

16 MR. BRODY: That's all I have got. Thank you.

17 THE COURT: All right. Thank you.

18 Redirect.

19 MR. ZEBRAK: Yes, Your Honor.

15:12:53 20 REDIRECT EXAMINATION

21 BY MR. ZEBRAK:

22 Q. I would just like to clarify a few things,
23 Ms. Frederiksen-Cross.

24 Let's start with the document that we were just
25 looking at. If we could call of DX 17, please.

1 Oh, excuse me. I thought he had introduced that.

2 You have in front of you a document in that binder
3 labeled DX 17?

4 A. I do.

5 Q. Do you know the context in which that document was
6 prepared?

7 A. My understanding is that that document was prepared both
8 with respect to presentations being made to the Motion Picture
9 Association of America and to the RIAA for discussion of an
10 approach to doing their monitoring.

15:13:34

11 Q. Are you familiar with something called the Copyright Alert
12 System?

13 A. I am.

14 Q. Do you have any understanding about whether this document
15 bears any relation to the Copyright Alert System?

16 A. I was trying to find that because my recollection is that
17 it did.

18 Q. Well, let me -- you can put the document aside for a
19 moment. Let me ask you a question.

15:13:57

20 Counsel pointed you to a number of different portions
21 of this document and asked some questions about whether
22 MarkMonitor had indicated to the RIAA that it would download
23 content from these peers prior to sending notices.

24 Do you recall that?

25 A. I recall we looked at those sections, yes.

1 Q. Yes. And do you recall that this document is prepared --
2 well, first of all, what does MPAA refer to?

3 A. The Motion Picture Association of America.

4 Q. And do you know whether the portions of the document that
5 counsel asked you to acknowledge in terms of what they say in
6 that document relate to work done for the RIAA as opposed to
7 the MPAA?

8 A. My understanding was that it was done for the MPAA as
9 opposed to the RIAA.

15:14:51 10 Q. Do you have a view about whether the portions of the
11 document counsel asked you to just speak to and read aloud bear
12 any relationship to the actual process done by MarkMonitor in
13 this case that you've concluded to be reliable and accurate?

14 A. It is my understanding that those portions were not
15 related to this case, but rather to a different engagement.

16 Q. Okay. Let's turn your attention to another document you
17 have in the binder in front of you, DX 0008, I believe that's
18 the Audible Magic guide that you indicated you looked at during
19 the course of your review.

15:15:44 20 A. I see that.

21 Q. Is that correct?

22 A. Yes.

23 Q. Okay. Would you turn your attention, please, to page 10
24 of that document.

25 And I believe counsel published this to the jury, in

1 which case we would ask for permission to do the same.

2 THE COURT: Go ahead.

3 MR. ZEBRAK: And if you could drill down under -- on
4 page 4 of this document, Mr. Duval.

5 BY MR. ZEBRAK: (Continuing)

6 Q. Now, I am going to direct you to a portion of the document
7 counsel didn't show you. So it's -- if you are looking at the
8 binder in front of you, it's on page 4.

9 A. Physical page 4, not Bates No. 4.

15:16:29 10 THE COURT: Is this paragraph 2 or a different
11 document?

12 MR. ZEBRAK: Sorry, Your Honor, there are several
13 different numbering schemes on the document. My apologies.

14 THE COURT: All right.

15 BY MR. ZEBRAK: (Continuing)

16 Q. So again, this isn't --

17 A. Okay.

18 Q. You didn't have the opportunity to look at this a moment
19 ago. But when you reviewed this document, did you -- did you
15:16:52 20 look at this portion here under: Accuracy?

21 A. I did, yes.

22 Q. And could you read in --

23 THE COURT: Let me hold you up for just one second.

24 Is this in evidence? Or do you want to move it in evidence?

25 Or what --

1 MR. ZEBRAK: Counsel just asked her questions about
2 it, and I would like to --

3 THE COURT: That's fine, but if it's going up on the
4 screen, and the jury is looking at it all, why don't you move
5 it in.

6 MR. ZEBRAK: We have no objections to that, Your
7 Honor.

8 THE COURT: All right. Any objection?

9 MR. BRODY: No, Your Honor.

10 15:17:25 THE COURT: All right. Then it's received.

11 Then go ahead put it up on the screen. Thank you.

12 MR. ZEBRAK: Thank you, Your Honor. I appreciate it.

13 BY MR. ZEBRAK: (Continuing)

14 Q. If we could turn your attention back to that page,
15 Ms. Frederiksen-Cross. Could you read what it says about a
16 third of the way down the page where it begins: Audible Magic
17 services are all -- yeah, there you go.

18 A. Yes: Audible Magic services are all tuned to have
19 essentially zero false positives. We believe that application
20 15:17:58 developers have enough to do without having to second-guess
21 identification. We test our services in-house to provide a
22 false positive rate of less than one in a million, and
23 practically speaking our customers report that our services
24 have zero false positives in audio identification.

25 Q. Are you familiar what a false -- with what a false

1 positive is in the context of the Audible Magic service?

2 A. Yes, I am.

3 Q. And would you explain to the jury what that is.

4 A. If there were misidentification, it could be either a
5 false positive or a false negative. A false positive would be
6 saying that a song was something that it wasn't. A false
7 negative would be saying, we couldn't identify the song even if
8 there was some matching fingerprint.

9 Q. And here it indicates that -- so what does it mean --
15:19:01 10 would you have an understanding what it means that Audible
11 Magic says that it's tuned to have essentially zero false
12 positives?

13 A. Yes. That means that the system is tuned to favor
14 accuracy over just the raw number of identifications. So if
15 there is any question of identification, they will return a
16 false, that is to say, I couldn't identify it, rather than a
17 true, that I was able to identify it.

18 So it is optimized for accuracy.

19 Q. And is -- and so, a false negative is a no match; is that
15:19:38 20 correct?

21 A. Right, a no match.

22 Q. Okay. And so, are false negatives an issue at all with
23 respect to the matches that Audible Magic did for the files
24 that were the subject of the notices to Cox?

25 A. No, because if the file couldn't be matched, then it

1 wouldn't be eligible to generate a notice. So it might mean
2 that fewer notices went out, but it wouldn't mean that an
3 inaccurate notice went out.

4 Q. Okay. Now I'm going to ask you about a few different
5 songs that -- so, first of all, do you recall that counsel
6 asked you to follow him when he took you through different tabs
7 and rows in a big spreadsheet?

8 A. Yes.

9 Q. Okay. So that spreadsheet -- well, first of all, do --
15:20:20 10 well, there were multiple spreadsheets, but do you recall the
11 one where he was asking about specific songs? And we'll start
12 with Lady Antebellum, "I Need You Now."

13 A. Yes, I recall that.

14 Q. Okay. Well, first of all, I'd like to -- if you could --
15 I'd like to ask you -- well, I'd like to publish for the jury
16 the list of sound recordings at issue in this case, which is PX
17 1.

18 And then I'd like to ask the witness whether she is
19 aware of whether Lady Antebellum, "Need You Now," appears on
15:20:55 20 this list of works in the case?

21 And, sir, if you could do a search when you have a
22 moment within PX 1, which is the record company sound
23 recordings at issue in the case.

24 MR. DUVAL: And what am I searching?

25 MR. ZEBRAK: Search "Need You Now."

1 BY MR. ZEBRAK: (Continuing)

2 Q. Well -- okay. So do you recall counsel asking you about
3 the song "Need You Now" by Lady Antebellum, right?

4 A. Correct.

5 Q. And we've just seen here that it doesn't appear on the
6 list of sound recordings in the case, correct?

7 A. That's correct.

8 Q. Okay. Now, what I'd like to do is call up in front of the
9 jury PX 2, which is the list of copyrighted musical

15:21:48 10 compositions in the case, and we're going to do a similar
11 search for "Need You Now."

12 A. Okay.

13 Q. Now, do you see the search return?

14 A. I do. It was not found.

15 Q. Okay. So as a result of this, is -- I think it's -- is it
16 correct that counsel was asking you about a song or a recording
17 that's not in this case?

18 A. That's correct.

19 Q. Okay. Now, we're going to turn to the second song that
15:22:23 20 Cox's counsel is asking you about. And it's called "Stand By
21 Your Man," by Tammy Wynette.

22 And, sir, Mr. Duval, if you could call up PX 1, the
23 list of sound recordings. And put it up -- a find search for
24 "Stand By Your Man."

25 And what does the search reflect?

1 A. The search results reflect that that song is not found in
2 the list.

3 Q. Okay. And, Mr. Duval, if you could do the same thing in
4 PX 2 in terms of a key word search for "Stand By Your Man."

5 And, Ms. Frederiksen-Cross, does "Stand By Your Man"
6 appear on PX 2?

7 A. No, that file was not found in the list of compositions.

8 Q. Is that another example of counsel asking you about a song
9 that's not in this case?

15:23:37 10 A. That's correct.

11 Q. Okay. Thank you. Do you recall counsel asking you about
12 the song "Love Story," by Taylor Swift?

13 A. I think so, yeah.

14 Q. Okay. Well, we're going to --

15 A. They kind of ran together after awhile there.

16 Q. We can skip that one if you don't recall.

17 Finally, do you recall counsel asking you about the
18 song "Lovely Day," by Bill Withers?

19 A. Yes.

15:24:10 20 Q. He happens to be one of my favorite artists.

21 So, Mr. Duval, could you pull up PX 1, please. And
22 search "Lovely Day."

23 Ms. Frederiksen-Cross, what's the result of searching
24 for the song "Lovely Day" on PX 1?

25 A. That song is not amongst the copyrighted sound recordings

1 in this case.

2 Q. Okay. Mr. Duval, could you search for "Lovely Day" on PX
3 2.

4 Okay. Ms. Frederiksen-Cross, what's the result of a
5 search for the song "Lovely Day" on PX 2?

6 A. That song is not amongst the copyrighted compositions
7 either.

8 Q. Okay. So, again, this represents instances where counsel
9 was asking you about data concerning songs and recordings not
10 in the case; is that correct?

11 A. That is correct.

12 Q. Okay. Thank you. Do you recall counsel asking you
13 several questions about the Stroz and Harbor Lab reports?

14 A. Yes.

15 Q. And did the Stroz reports point to even a single
16 inaccuracy in the MarkMonitor system?

17 A. No. They found the system to be accurate.

18 Q. Do you recall whether the Harbor Lab report pointed to
19 even a single inaccuracy in the MarkMonitor system?

15:26:02 20 A. No. Harbor Labs also confirmed that the system was
21 accurate.

22 Q. And in the course of your -- oh, I'm sorry, how many hours
23 did you say you worked on this matter?

24 A. Approximately 400.

25 Q. Okay. In the course of your 400 hours in this case thus

1 far, have you run across a single instance where you have been
2 able to point to a MarkMonitor notice going out for a file
3 that, in fact, was non-infringing?

4 A. No, I was not able to find any such evidence.

5 Q. Do you recall counsel asking you questions about
6 MarkMonitor submitting file hashes to Audible Magic?

7 A. I recall those questions, and I tried to kind of clean
8 that up because it was confusing. But I do recall the
9 questions.

15:26:50 10 Q. So what is it that Audible -- that MarkMonitor submits to
11 Audible Magic for a lookup?

12 A. Audible Magic uses sound fingerprints for its lookup,
13 which are based on the acoustic characteristics of the sound,
14 not a hash value.

15 Q. And do you recall counsel asking you several questions
16 about the various levels of the Audible Magic lookups in terms
17 of a Level 1 versus a Level 3?

18 A. Yes, I do.

19 Q. And do you have an understanding about whether there are
15:27:25 20 any reliability differences for lookups as between a Level 1 or
21 a Level 3?

22 A. My understanding, both after doing a few mathematical
23 calculations and trying to find a difference, and also after
24 speaking to Audible Magic's engineers, is that there is no
25 difference in the accuracy. They're both ultimately reliant on

1 the same length of sound clipping to generate the actual
2 fingerprint and have the same reliability according to their
3 testing with respect to the results.

4 Q. And do you recall counsel asking you a number of questions
5 about a directory of files from a hard drive?

6 A. I do, yes.

7 Q. And just to be clear, that spreadsheet that has the
8 directory of the files on the hard drive, that's something
9 separate from the notice data that contains the information
10 that was reported to Cox, correct?

15:28:13

11 A. Absolutely, yes.

12 Q. All right. So -- and to be clear, the digital
13 fingerprints that are submitted to Audible Magic for a lookup,
14 that's something separate than a hash ID for file
15 identification, correct?

16 A. That is correct as well.

17 Q. Okay. So let's say that there's a file with a hash. For
18 simplicity purposes, we'll just call it XYZ.

19 A. Okay.

15:28:41

20 Q. I've looked at a number of these. It's too hard to
21 pronounce.

22 First of all, if a file -- and we're just identifying
23 the file by hash XYZ, do you know if that file with that hash
24 XYZ can be distributed on both the -- on more than one
25 peer-to-peer network at a time?

1 A. Absolutely.

2 Q. For instance, could a file with a hash XYZ be distributed
3 on both the BitTorrent and Gnutella network?

4 A. Yes, it could.

5 Q. And provided files have the same hash value -- okay? So
6 let's go back to the XYZ example for a moment. Provided that
7 they have the same hash value, will they have the same contents
8 regardless whether I pull it off today, or pull it off a year
9 ago, or a year from now?

15:29:33 10 A. The contents will be the same regardless of when you pull
11 it, unless there has been some damage to the file.

12 Q. So do you recall counsel asking you some questions about
13 your review of evidence packages?

14 A. I do.

15 Q. And I believe you indicated you reviewed something like
16 175,000 evidence packages; is that correct?

17 A. It was between 175 and 176. I don't remember the exact,
18 but yes.

19 Q. And counsel, I think, asked you whether you were able to
15:30:05 20 -- whether there was an evidence package available for your
21 review corresponding to every single notice that went to Cox.

22 Do you recall those questions?

23 A. I recall those questions.

24 Q. And I think you indicated that there was some portion of
25 the notices, the evidence packages, weren't available for your

1 review, right? You were -- so --

2 A. That's correct, yes.

3 Q. Okay. Did your ability to review 175,000 evidence
4 packages rather than the ones corresponding to all notices, did
5 that have any impact on your ability to assess the accuracy and
6 reliability of the MarkMonitor system?

7 A. No. Because I looked at the evidence that was made
8 available in this case, and I cross-correlated the evidence of
9 the evidence packages to the notices where I was able to do
10 that. Obviously did that mostly programatically, though I also
11 visually inspected it.

12 I found it to be entirely consistent. And it was
13 also entirely consistent with the software. And so, I found no
14 deviation there.

15 So I would expect that the remainder of the notices,
16 which contain copies of information from the evidence files,
17 had those evidence files been available, they would have been
18 consistent with everything else that I saw.

19 Q. Let me just follow up with a couple final questions. So,
20 first of all, you reviewed the data in the notices for every
21 notice that went out in this multiyear period to Cox from
22 MarkMonitor, correct?

23 A. My programs and I did, yes.

24 Q. I understand that. And am I correct that you testified
25 earlier that the notices at issue draw information from the

1 evidence packages, correct?

2 A. That's correct, yes.

3 Q. Yeah. So does your ability to review the notices in any
4 way have any impact or give you any insights to evidence
5 packages for those detected infringements?

6 A. Well, based on the 175,000 that I looked at, the
7 information in the notices comes directly from the evidence
8 packages.

9 So the same evidence is present in both places, at
10 15:32:25 least with respect to that evidence used in the notices or used
11 for the notices.

12 Q. Sure. And, you know, my last question right now concerns
13 the timing of the notices for which the evidence packages
14 weren't available at the time of your review.

15 How -- do you recall how those relate to the timing
16 of the claim period in this case?

17 A. I think that they either predate or come right at the very
18 beginning of the time period. I would want to look back to my
19 report with the note about the exact date of where that cutoff
20 15:33:04 was.

21 Q. Sure. Why don't we give you the opportunity to refresh
22 your recollection by looking at your report.

23 A. Sure.

24 Q. And I believe that's in the binder in front of you. It's
25 the first -- it appears to be 4-A, and you may arrive at the

1 page faster than I might. It's page 29.

2 A. Okay. Thank you, counsel. The time period where the
3 notices were missing was January 16, 2013, which I understand
4 to be a time period before the time period for the notices that
5 are at issue in this case.

6 Q. Okay. So for the notices that went to Cox during the
7 claim period in this case, you were able to review the source
8 code, the evidence packages, the notices, and the notice data
9 that issued, as well as do all the other things you talked
10 about today?

11 A. Let me just check something here.

12 That is correct with respect to a smaller number of
13 notices that were missing during the time frames of 6 to 8 p.m.
14 for a few days in 2013.

15 MR. ZEBRAK: But you have -- do you have any reason
16 -- well, actually, strike that. We're done.

17 Thank you, Your Honor.

18 THE COURT: Okay. All right. May
19 Ms. Frederiksen-Cross be excused?

20 MR. BRODY: May I have a very brief recross?

21 MR. ZEBRAK: Yes, Your Honor.

22 THE COURT: No, we've done enough.

23 All right, you're excused with our thanks. Please
24 don't discuss the testimony that you've given with any -- here
25 today with anybody else until our trial is over. All right?

1 THE WITNESS: Okay.

2 THE COURT: All right. Have a good evening. Thank
3 you.

4 THE WITNESS: Thank you very much.

5 NOTE: The witness stood down.

6 THE COURT: All right. Let's take our afternoon
7 recess.

8 We'll take 15 minutes and we'll come back with
9 further testimony.

15:35:30 10 Thank you. You're excused.

11 NOTE: At this point the jury leaves the courtroom;
12 whereupon the case continues as follows:

13 JURY OUT

14 THE COURT: All right. Anything before we recess?

15 MR. ZEBRAK: No. Thank you, Your Honor.

16 THE COURT: All right. We're in recess.

17 NOTE: At this point a recess is taken; at the
18 conclusion of which the case continues in the absence of the
19 jury as follow:

16:00:46 20 JURY OUT

21 MR. OPPENHEIM: I think we have reached agreement to
22 stipulate to the entry of certain exhibits. We can just do
23 that before the jury comes out, and then we're ready to go.

24 THE COURT: That's fine.

25 MR. OPPENHEIM: So, Your Honor, I believe that there

1 is agreement for entry of PX 11, PX 16, PX 33, PX 17, and
2 PX 14. Did I get that right?

3 MR. BRODY: I think so.

4 MR. OPPENHEIM: I skipped this one.

5 MR. BRODY: Yes. PX 11, yes. PX 16, yes. PX 33,
6 yes. PX 17, yes, on the understanding that's a compilation of
7 notices, there are two of those, one that was sent to us --
8 their copy of what they sent to us and our copy of what we
9 received are slightly different. We want both of them in.

16:01:46 10 MR. OPPENHEIM: Okay. In which case, then I'll just
11 lay a foundation because I don't know what exhibit that is.

12 THE COURT: Keep working on that one, then.

13 MR. BRODY: And PX 14 is fine.

14 THE COURT: Good. Thank you for working that out.
15 Those will be received.

16 Are we ready for our jury, then?

17 All right, Joe. Let's get our jury, please.

18 NOTE: At this point the jury returns to the
19 courtroom; whereupon the case continues as follows:

16:02:55 20 JURY IN

21 THE COURT: All right. Please have a seat.

22 Mr. Oppenheim, next witness, sir.

23 MR. OPPENHEIM: Your Honor, plaintiffs would call
24 Samuel Bahun.

25 NOTE: The witness is sworn.

1 THE COURT: Good afternoon, sir.

2 Please proceed, Mr. Oppenheim.

3 MR. OPPENHEIM: Thank you, Your Honor.

4 SAMUEL BAHUN, called by counsel for the plaintiffs,
5 first being duly sworn, testifies and states:

6 DIRECT EXAMINATION

7 BY MR. OPPENHEIM:

8 Q. Good afternoon, Mr. Bahun.

9 A. Good afternoon.

16:04:01 10 Q. Where do you work?

11 A. I work for MarkMonitor.

12 Q. And what is MarkMonitor's business?

13 A. MarkMonitor is a global leader in brand protection,
14 antipiracy, and antifraud services, as well one of the largest
15 domain registrars.

16 Q. And just for the benefit of the court reporter, because
17 I'm saying Bahun, and I've made this mistake myself, how do you
18 spell your last name?

19 A. It's B-a-h-u-n.

16:04:33 20 Q. Thank you. And what is your current position at
21 MarkMonitor?

22 A. I am the director of strategic accounts.

23 Q. And as the director of strategic accounts, what do you do?

24 A. So I work under the antipiracy division of the company.

25 And I'm responsible for working with the larger accounts, the

1 more important accounts that we have, managing various aspects
2 of the antipiracy services that we deliver to them.

3 Q. And, technically, what department is your -- are you in
4 within antipiracy?

5 A. So my position under the org chart falls under the sales
6 organization, but I am more of a hybrid role. I -- a lot of
7 what I do is more consultative, working with various content
8 owners from kind of the start of their evaluation of issues
9 that they're facing and problems that they're seeing with
10 piracy, all the way through the sales process, and then the
11 implementation, kind of the management of the technical aspects
12 of their services.

13 Q. Do you provide end-to-end service --

14 A. Yes.

15 Q. -- for your clients?

16 A. Yes.

17 Q. And how long have you worked for MarkMonitor?

18 A. I have worked for MarkMonitor for nine-and-a-half years.

19 Q. And prior to working at MarkMonitor, where did you work?

16:06:00 20 A. I worked for a company called MediaSentry.

21 Q. And what is MediaSentry or was MediaSentry?

22 A. Yeah, MediaSentry was also a vendor that provided
23 antipiracy services.

24 Q. And how did those antipiracy services differ from the
25 antipiracy services that MarkMonitor offers?

1 A. There were a lot of similarities, they covered many of the
2 same areas. Back when we started, you know, the space was a
3 little different, so there were some variations, but
4 essentially the same services.

5 Q. And what was your role at MediaSentry?

6 A. When I started off, it was more of a technical role. So I
7 worked in operations, did analyst work, and held a few
8 different positions throughout the time that I was there,
9 starting off in more technical and then working kind of into
10 more business-related roles.

16:06:54

11 Q. And for what period did you work at MediaSentry?

12 A. So I started at MediaSentry in May of 2003. So I was
13 there for about six-and-a-half years.

14 Q. So all told, how many years have you been working in the
15 business of antipiracy?

16 A. Just over 16 years.

17 Q. Let's talk a little bit more about MarkMonitor. When was
18 MarkMonitor founded?

19 A. MarkMonitor was founded in 1999.

16:07:31

20 Q. And can you describe the different types of business that
21 MarkMonitor is in.

22 A. Sure. Yes. So originally it was founded as a brand
23 protection company. So they were focused on helping companies
24 protect their brands and their presence online. They actually
25 were kind of the inventor of that space.

1 And then from there, they grew into working with
2 antipiracy and antifraud and the domain services as the
3 registrar.

4 Q. And what kinds of clients does MarkMonitor provide
5 services to?

6 A. A pretty broad list. We work with, I think, over half of
7 the Fortune 100 companies across virtually every industry. So
8 we have -- we work with companies like Verizon, Nissan,
9 Coca-Cola.

16:08:30 10 On the domain side, it's -- the list is very long.
11 We work with companies like Apple and Google, that sort of
12 companies.

13 Q. Does MarkMonitor do work in the financial industry?

14 A. We do, yes.

15 Q. And does MarkMonitor do work in -- with respect to sports
16 leagues?

17 A. Yes. We work with most of the major pro sports leagues.

18 Q. And what kind of services does MarkMonitor provide to
19 professional sports leagues?

16:09:06 20 A. So the sports leagues own a lot of content from the games,
21 video content. And so, the work we do with them is primarily
22 focused on piracy of the live streams.

23 So, you know, the football games that are airing, a
24 lot of times those streams get pirated and offered to consumers
25 through a variety of pirate environments. So, yeah.

1 Q. Is it more than just football?

2 A. Yes.

3 Q. Does MarkMonitor also do work in the film and television
4 space?

5 A. Yes.

6 Q. And what kind of work does MarkMonitor do there?

7 A. Again, kind of a variety. For film and TV content, we
8 provide services related to peer-to-peer piracy, Web piracy,
9 piracy that's made available on search engines. There is a
16:10:05 10 number of areas. Really virtually any area that we see piracy
11 occurring, we provide services to identify that and take
12 action.

13 Q. Are there other content industries that MarkMonitor does
14 work for in the antipiracy space beyond movies and television?

15 A. Yeah, yes. So I think virtually all the media types. We
16 work with film, TV, music, publishing, video games, software,
17 all the different categories you would assign to that content,
18 yeah.

19 Q. And what types of antipiracy services does MarkMonitor
16:10:45 20 offer with respect to peer-to-peer networks?

21 A. The main focus is in monitoring the infringing activity
22 that is taking place. So identifying the infringement that is
23 occurring, collect evidence, and send notices to the ISPs to
24 inform them of it.

25 Q. And how many ISPs does MarkMonitor send notices to?

1 A. Globally, it's in the thousands. In the U.S., hundreds.

2 Q. So you have mentioned a lot of large companies and
3 industries that retain MarkMonitor. Based on your experience
4 in talking to them, do you have a sense of why MarkMonitor is
5 retained by all these companies?

6 A. Yeah. I mean, our reputation, our history and our
7 reputation that we maintain in this area is impeccable. I
8 mean, we have become in many ways kind of the leaders in this
9 space. And the services that we provide are critical for
10 content owners to identify and understand the level of
11 infringement that is taking place and, you know, do something
12 about it. So ...

13 Q. In the course of your antipiracy work, do you have any
14 background in working with law enforcement?

15 A. Yes. So, yeah, in addition to all the stuff we have
16 already talked about, I have assisted the Department of Justice
17 in conducting training with their agents, as well as FBI and
18 Homeland Security.

19 I have also worked in kind of a consultative role
16:12:38 20 with the Royal Canadian Mounted Police in their efforts to
21 identify and address things like human trafficking, child
22 exploitation, that kind of thing.

23 As well as I have done kind of ongoing -- I
24 occasionally do work with local and state law enforcement and
25 teams of prosecuting attorneys.

1 Q. And when you're doing work with law enforcement like this,
2 is this just sales work, or is it something different?

3 A. No, actually, none of that would be considered sales. It
4 is more related to training and consulting those groups to help
5 them understand, you know, the technology that is involved and
6 the crimes that they're working with and, you know, helping
7 them understand how to -- how to monitor it and how to interact
8 with those issues, yeah.

9 Q. Do you also work with state law enforcement from time to
10 time?

11 A. Yes.

12 Q. When did you start working on peer-to-peer networks?

13 A. So I started -- back at the beginning of my career, I
14 actually started my career in antipiracy on a team that was
15 hired to work with the music industry related to Napster. So
16 at the very beginning of peer-to-peer.

17 Q. And what role did your team play in the Napster case?

18 A. So we were hired at that time to collect data on the
19 infringing activity taking place and provide evidence that
20 supported the various enforcement efforts that were going on at
21 that time.

22 Q. Over the course of the last -- over the course of the time
23 that you have been working on peer-to-peer activities, roughly
24 how much of your time is dedicated to peer-to-peer versus other
25 types of piracy?

1 A. Probably -- I mean, it has been continuous throughout the
2 16-and-a-half years. But I would -- I would estimate about
3 half of my time. I mean, it's a big portion of what I do,
4 yeah.

5 Q. At a high level, over the course of your time working with
6 peer-to-peer, can you describe for me, consumer perspective,
7 what a peer-to-peer network is for?

8 A. Yes. So, I mean, at a high level, peer-to-peer networks
9 predominantly are used to gain access to pirated content.

16:15:19 10 Q. Can peer-to-peer -- based on your understanding, can
11 peer-to-peer be used for other purposes?

12 A. Sure, yes.

13 Q. And what experience do you have in seeing peer-to-peer
14 used for non-piracy purposes?

15 A. I mean, there are -- there are some examples where
16 software companies and others have been able to leverage the
17 technology as a means to distribute content, you know, across
18 different groups of people.

19 Most of the time, I think, the legitimate -- or, you
16:15:58 20 know, the legitimate uses of it, it's often integrated in the
21 background of a piece of software. So the people don't even
22 know that it is leveraging that.

23 But that is, you know, one example that I can think
24 of where peer-to-peer software can be used in a legitimate
25 manner.

1 Q. And are you aware of the four peer-to-peer networks at
2 issue in this case?

3 A. Yes.

4 Q. And what are they?

5 A. BitTorrent, eDonkey, Gnutella, and Ares.

6 Q. And in your experience, to what extent of the content on
7 those networks is infringing or is piratical?

8 COURT REPORTER: I am sorry, counsel?

9 MR. BRODY: Objection.

16:16:38 10 MR. OPPENHEIM: I said piratical, but I'll go with
11 piracy. Maybe that's a little easier.

12 THE COURT: All right. Overruled.

13 THE WITNESS: I'm sorry. Can you repeat the
14 question?

15 BY MR. OPPENHEIM: (Continuing)

16 Q. In your experience on those four networks --

17 A. Yeah.

18 Q. -- to what extent is the content piracy?

19 A. It'd be difficult for me to quantify it. But the
16:16:58 20 overwhelming majority of the content we see on those networks
21 is pirated content.

22 Q. In the course of your work, do you monitor what's
23 happening on peer-to-peer networks?

24 A. Yes.

25 Q. And how do you do that?

1 A. So we've developed proprietary technology at MarkMonitor
2 that interacts with the peer-to-peer networks in very similar
3 ways to a typical user. But our technology allows us to do it
4 at a much larger scale.

5 And so, we use the scanning technology that we've
6 developed to monitor that activity.

7 Q. And do you ever monitor it just to get a sense of the
8 total measure of what's happening on the networks?

9 A. Yes.

16:17:53 10 Q. And how often do you do that?

11 A. So we have kind of an ongoing monitoring project that we
12 run independent of any of our customers. It focuses -- it's --
13 there's so much content on those networks, it's difficult to
14 cover everything. So we developed a methodology that
15 identifies kind of a -- in a consistent manner, a sample set of
16 the most popular film, TV, and music content. And we monitor
17 on an ongoing basis for that content.

18 Q. And what do -- does that monitoring generate reports or
19 information in some way?

16:18:35 20 A. Yeah. So the data that we -- the data we collect from
21 that gives us kind of an accurate view, at least in a
22 consistent way from a statistical standpoint, on how much
23 pirated activity we see taking place on those popular titles.

24 And so, we use it in a number of ways. Some
25 customers purchase that data for their own types of analysis.

1 But internally, we can analyze it to determine what volumes of
2 infringements we're seeing from certain ISPs, for certain types
3 of content. You know, a variety of things we can analyze. But
4 those are some of what we use it for.

5 Q. Is there a term for this ongoing monitoring that you use
6 internally or externally for that matter?

7 A. Sure. Yeah, the name that we've run it under is -- we
8 call it the global digital piracy index, or GDPI for short.

9 Q. Okay. And the reports that are generated out of that, are
10 those reports you -- that you have occasion to read?

11 A. Yes.

12 Q. And how often do you review those reports?

13 A. When I have time, daily. But I would say on average,
14 probably two to three times a week I'm looking at that data for
15 various reasons.

16 Q. And is it important in the work you do?

17 A. Yes.

18 Q. And is it important that you know it for your clients'
19 purposes?

16:20:05 20 A. Yes.

21 Q. I want to turn now to MarkMonitor's relationship with the
22 RIAA.

23 Can you describe when MarkMonitor first began working
24 with the RIAA?

25 A. Yes. So I started with MarkMonitor in 2010, and at that

1 time they had an existing relationship with RIAA.

2 Q. And do you know how far back it went?

3 A. I don't -- I don't know 100 percent for sure, but I think
4 it was around 2008, maybe, when they started working together.

5 Q. And when did you first begin working with the RIAA at
6 MarkMonitor?

7 A. When -- basically when I joined. I had worked with the
8 RIAA prior to working for MarkMonitor, so there was an existing
9 relationship personally. But -- so when I joined MarkMonitor,
10 it was easy for me to kind of start working with them
11 immediately.

12 Q. And what was your role? What did you -- what did you do?

13 A. So at that time, again, with my background in
14 peer-to-peer, I was working with a few others at MarkMonitor to
15 kind of assist and manage the scanning projects and notice
16 sending programs that we were running for RIAA.

17 Q. And were there ongoing scanning projects -- excuse me.

18 Were there ongoing scanning projects as far back as
19 2010?

16:21:44 20 A. Yeah. I don't -- again, I don't remember what was going
21 on prior to that. But, yes, around that time when I got
22 involved there was a project that was being worked on, yeah.

23 Q. And did those scanning projects involve any kind of notice
24 sending?

25 A. Yes.

1 Q. And to whom were notices being sent?

2 A. There were a couple different groups, but primarily I
3 recall residential ISPs.

4 Q. And when you say "residential ISPs," would that include
5 Cox Communications?

6 A. Yes.

7 MR. OPPENHEIM: Did we give him a notebook yet? All
8 right. We forgot to -- can we hand up the notebook to the
9 witness, or have we done it already?

16:22:40 10 THE COURT: Yes.

11 MR. OPPENHEIM: Thank you.

12 BY MR. OPPENHEIM: (Continuing)

13 Q. Mr. Bahun, in this notebook could you please look at PX 4,
14 which I believe should be the second tab of the notebook. It's
15 the next --

16 Move it into evidence.

17 THE COURT: I've got it.

18 MR. OPPENHEIM: We'll move it into evidence. Cox
19 does not object.

20 THE COURT: No objection?

21 MR. BRODY: No objection.

22 THE COURT: All right. It's received.

23 MR. BRODY: Okay. Can we publish this to the jury,
24 please?

25 THE COURT: Yes, sir.

1 BY MR. OPPENHEIM: (Continuing)

2 Q. Do you recognize this document, Mr. Bahun?

3 A. Yes.

4 Q. And what is it?

5 A. This is an SOW, what we call a statement of work.

6 Basically the contract between MarkMonitor, at this time doing
7 business under the name DtecNet, and the RIAA.

8 Q. If you would pull that microphone just a little bit closer
9 to you because your voice is fading a little.

10 A. Okay. Sorry.

11 Q. This happens late in the day. Thank you.

12 So you -- there was a bunch there. So you used the
13 name DtecNet. Who is DtecNet?

14 A. So DtecNet was an antipiracy company that was acquired by
15 MarkMonitor and essentially became MarkMonitor's antipiracy
16 division.

17 Q. Were you actually working for DtecNet in 2010?

18 A. Yes.

19 Q. When it became MarkMonitor?

16:24:27 20 A. Yes.

21 Q. Okay. And what is the -- what is the date of this
22 agreement?

23 A. February 15, 2012.

24 Q. And this is -- is this the agreement under which
25 MarkMonitor was sending notices in the 2012 to 2013 time frame?

1 A. Yes.

2 Q. And were there subsequent agreements like this for -- that
3 extended this program out to 2015?

4 A. Yes.

5 Q. I'd like to direct your attention to page PX 00040004.

6 Do you see the section where it says: Supported file
7 sharing networks?

8 A. Yes.

9 Q. Can you explain what this provision of the agreement is?

16:25:27 10 A. Yes. This section described the four peer-to-peer
11 networks that we were scanning as part of this agreement.

12 Q. And what were those networks?

13 A. BitTorrent, Gnutella, eDonkey, and Ares.

14 Q. Between 2012 and 2015, did MarkMonitor add any additional
15 networks to its scanning work?

16 A. No, I don't believe so.

17 Q. And you used the term "scanning," and then I picked it up.
18 But could you explain what you mean by scanning?

19 A. Sure. So it is kind of a general term, but essentially
16:26:20 20 scanning is where we would deploy our system to identify
21 infringing files on these networks, and then we would monitor
22 for the infringements that are occurring.

23 So generically we would refer to that as scanning.

24 Q. And is there an -- did this agreement contemplate that
25 there would be certain quantities of notices that would be sent

1 under it?

2 A. Yes. I believe there's a page in the agreement that
3 describes that.

4 Q. Can you tell me which page that is?

5 A. It is PX 00040008, labeled Appendix A.

6 Q. Can we pull that up, please.

7 And -- great. Can you explain what this appendix
8 shows.

9 A. Yes. So this table details the estimated volume of
10 notices that we would send by ISP per month.

11 So on the left-hand side, you have a list of ISPs put
12 into kind of two groups there. And then across the top, you
13 can see months. And the corresponding numbers describe the
14 volume of notices per month.

15 Q. So there seem to be, I think, five ISPs at the top and it
16 says: Participating.

17 Do you see that?

18 A. Yes.

19 Q. What is that a reference to?

16:28:13 20 A. At this time there was a notice program in place where the
21 five ISPs in that section were kind of willing participants.
22 So they -- the term that was used for those was to describe
23 them as participating.

24 Q. And what was that program called?

25 A. It was the Copyright Alert System. So CAS for short.

1 Q. And so, the volumes of notices there set for the CAS
2 participating ISPs, do you know how those volumes were set?

3 A. I don't know all of it. But the data I described earlier,
4 the GDPI data that we used to kind of evaluate volumes, was one
5 element of it.

6 Ultimately, the decision was not ours. So, you know,
7 it was -- RIAA had a process they went through, and I think
8 they took the data that we provided as kind of one element of
9 that decision.

16:29:12 10 Q. And it appears that some of these ISPs seem to, over time,
11 increase their numbers. Can you explain that, please.

12 A. Yes. So at the beginning of the -- this graduated
13 response program, there was a ramp-up period. And so, you
14 know, it didn't start with kind of the full volume that was
15 expected from day one because it was a -- kind of a structured
16 program, we -- that they had planned for the volumes to kind of
17 increase gradually over the first few months.

18 Q. Looking at March of 2013, the last month in the year here,
19 what was the anticipated notice volume for AT&T?

16:30:04 20 A. 28,750.

21 Q. And how about Cablevision?

22 A. 17,250.

23 Q. And how about Comcast?

24 A. 29,000.

25 Q. How about -- what is TWC? That's the next one.

1 A. Time Warner Cable.

2 Q. Okay. So what was the anticipated notice volume for TWC?

3 A. 20,125.

4 Q. And what was the notice volume for Verizon?

5 A. 43,125.

6 Q. Now, skip down below. Do you see Cox in the next box?

7 A. Yes.

8 Q. For that same month in 2013, what was the anticipated
9 notice volume there?

16:30:44 10 A. 7,200.

11 Q. And do you know why that number was as low as it was?

12 A. Yeah. The -- Cox is kind of the one that stands out as an
13 exception in this table because I -- and I recall it because
14 it's the only time we've ever seen this occur. We were -- we
15 were told by the RIAA that a cap, a daily limit had been set by
16 Cox and communicated to them.

17 MR. BRODY: Objection. Move to strike.

18 MR. OPPENHEIM: I can clarify it if you'd like, Your
19 Honor.

16:31:31 20 THE COURT: Well, it's hearsay.

21 MR. OPPENHEIM: It is, but it -- if he's offering it
22 because that was the basis of what was in the contract, his
23 understanding of what was in the contract, it goes to why they
24 entered into that agreement.

25 THE COURT: Yeah. I'm going to strike it. Objection

1 sustained.

2 Go ahead. Ask your next question.

3 BY MR. OPPENHEIM: (Continuing)

4 Q. In the lower box here that starts with AOL, could -- do
5 you know generally how the quantities of notices were
6 determined? The anticipated -- excuse me. The anticipated
7 notice volume was determined for the boxes down below, the ISPs
8 in the box down below?

9 A. Yes. The part of the process we were involved in was
16:32:17 10 looking and analyzing that -- the infringement volume that I
11 mentioned earlier, to get a sense of what -- you know, how much
12 infringing activity we were seeing on the networks for these
13 specific ISPs.

14 And so, based on that and some analysis around that
15 data, we were able to come up with estimated volumes that we
16 would expect.

17 Q. I apparently skipped a point. In that box, it says:
18 Non-participating; does it not?

19 A. Yes.

16:32:47 20 Q. Right above it. What does non-participating mean?

21 A. Again, just a general term that was used to differentiate
22 ISPs who were not participating in the Copyright Alert System.

23 Q. And so for those ISPs, with the exception of Cox, what
24 data did you use to insert anticipated notice volumes? I'm
25 sorry.

1 A. The infringement data that we collected on the broader set
2 of content just to kind of analyze and estimate what level of
3 infringing activity we were seeing on the various networks.

4 Q. And that was the GDPI data you discussed earlier?

5 A. Yes.

6 Q. Do you recall what the GDPI data showed for Cox at that
7 period of time?

8 MR. BRODY: Your Honor, may I approach?

9 THE COURT: Yes, sir.

16:33:43 10 NOTE: A sidebar discussion is had between the Court
11 and counsel out of the hearing of the jury as follows:

12 AT SIDEBAR

13 THE COURT: Yes, sir.

14 MR. BRODY: This is the pulse monitoring question.
15 So we maintain our objection. I think that the testimony that
16 he gave was that all they are doing is basically seeing how
17 many -- how much traffic there is with respect to swarms. It
18 has nothing to do with infringement. It has nothing to do with
19 anything.

16:34:30 20 There is no foundation. I think if he's asked, he
21 will testify that the information they gathered was
22 insufficient to support notice. I think he will testify that
23 they didn't determine whether the peers involved were actually
24 running P2P software.

25 I think he will testify that they didn't actually

1 determine that the computers were operational. Those are
2 higher levels of inquiry than what they did.

3 And as a consequence -- I think he also testified
4 that he actually wasn't the one who was preparing and
5 collecting this data, and that he is basically relying on what
6 other people did.

7 So I think that the bottom line, the data is -- it's
8 being offered to create the inference that Cox had a lot more
9 infringement on its network than is commensurate with the level
10 of notices that they were receiving. And it's not probative of
11 that fact. It simply isn't probative of infringement.

12 MR. OPPENHEIM: I don't think that is quite an
13 accurate description of what Mr. Bahun said. He said that they
14 used music, movies, and televisions to do searching, and that
15 that formed a basis for the pulse checks for GDPI data. He
16 testified that it's something that they do regularly. He
17 relies on it regularly. He reviews it regularly. He uses it
18 to inform his clients regularly.

19 He said it informed him on the decisions of what the
16:36:15 20 other ISPs -- the anticipated notice volumes for the other ISPs
21 would be. And I think he's laid a foundation, and Mr. Brody is
22 free to cross-examine him on it.

23 THE COURT: Well, it obviously does not have to be
24 just data collected for purposes of sending notices. Right? I
25 mean, that's not the only use you can make of this kind of

1 data.

2 So that is something that I had been thinking about
3 earlier. So --

4 MR. OPPENHEIM: I can clarify that, Your Honor, that
5 the GDPI data was not used for sending notices.

6 MR. BRODY: Can we also -- can I also ask for a
7 clarification that it is not indicative of the level of
8 infringement on the Cox system? Because that's the real issue.
9 They want to use this as evidence of the amount of infringement
10 that was going on.

16:37:08

11 THE COURT: Of traffic, P2P traffic?

12 MR. BRODY: It could be his --

13 THE COURT: He is not going to say it is all
14 infringement. He hasn't looked at it. But he has said already
15 generally that most of the P2P traffic is pirating. So it's
16 already in.

17 What's his response going to be to these questions?

18 MR. OPPENHEIM: That when he looked, he saw well over
19 10,000 Cox subscribers distributing works on peer-to-peer
20 networks per day at this point in time.

16:37:43

21 And I also think that when he was doing searching,
22 what they were searching for was, in fact, infringing content,
23 movies, music, television shows. So it's not fair to say that
24 it's not indicative necessarily of piracy.

25 Again, I'm not saying, and he has not said that it's

1 a basis for infringement notices, but this is the basis upon
2 the contract --

3 THE COURT: What's the reliability of the underlying
4 cultivation of the information? He hasn't testified about
5 that. And that's my point. Where is it coming off of? I
6 mean, he did say --

7 MR. OPPENHEIM: I'm happy to ask him that, if you'd
8 like, Your Honor, and lay that foundation.

9 THE COURT: Is this the same platforms and software
10 systems that they are using for all the other information?
16:38:30

11 MR. OPPENHEIM: I believe he will say he's using the
12 same monitoring system, but obviously not the same evidence
13 collection notice sending because they don't go that far.

14 THE COURT: All right. Lay a foundation for that
15 and --

16 MR. BUCHANAN: Can I say something?

17 THE COURT: Yes.

18 MR. BUCHANAN: It's just we don't have any of that
19 data.

16:38:51 20 THE COURT: Yeah, I know. And your record is
21 preserved on that.

22 All right. Lay a foundation for that, where the data
23 is coming from.

24 And then your exception is noted. I will allow it.

25 Are these records that I have just said were hearsay,

1 are these business records or -- I mean, I don't know whether
2 they are or they aren't. I just expected that those would
3 be --

4 MR. OPPENHEIM: Which --

5 THE COURT: Five minutes ago I sustained an objection
6 on a hearsay ground based on Cox's low numbers in the chart
7 they were keeping for preferred and non-preferred.

8 MR. OPPENHEIM: So the question to him was, did he
9 understand why the numbers were so low. And he said, well, the
10 RIAA --

16:39:35

11 THE COURT: I talked to someone else and they told
12 me --

13 MR. OPPENHEIM: Right, which is why the agreement
14 entered into it --

15 THE COURT: It's classic hearsay.

16 MR. OPPENHEIM: Well, but it is what's -- it's the
17 basis for the contract -- it's his understanding as to why they
18 entered into the contract.

19 THE COURT: Okay. Then my ruling was correct.

16:39:52

20 MR. OPPENHEIM: That's fine.

21 THE COURT: All right. Let's continue.

22 NOTE: The sidebar discussion is concluded; whereupon
23 the case continues before the jury as follows:

24 BEFORE THE JURY

25 THE COURT: Please, go ahead.

1 BY MR. OPPENHEIM: (Continuing)

2 Q. Mr. Bahun, I would like to go back and talk about the GDPI
3 data for a moment again.

4 When MarkMonitor is collecting this data -- strike
5 that.

6 How does MarkMonitor go about collecting this data?

16:41:02 10

7 A. So it starts with going out to the peer-to-peer networks
8 and searching for files that match for the titles that we're
9 scanning for. So in the case of GDPI, it's film, TV, and
10 music.

11 So we select a sample of the most popular film
12 titles. The most -- the television series, and the prime time
13 window on major networks. And we primarily focus on the top
14 billboard charts for music. That gives us a consistent way of
15 selecting the titles that we'll look for in that data set.

16 Q. Let me pause right there. Let me just interrupt you with
17 a quick question.

16:41:36 20

18 Those files that you're looking for, that you just
19 described, do you understand that you're looking for files that
20 are infringing or non-infringing?

21 A. Infringing.

22 Q. Okay. So please continue then. What's the next step in
23 the process?

24 A. So once we've -- once we've defined the titles that we're
25 looking for, we then go to the networks, the peer-to-peer

1 networks, and scan looking for, at that stage, potentially
2 infringing files.

3 When we find them, we download a full copy so that we
4 are able to verify that the files are, in fact, what we think
5 they are.

6 From there, we monitor the swarms around these files
7 and identify as much peer activity as we can. And then that's
8 where the -- that's where the scanning process for that
9 finishes.

16:42:24 10 Q. And how do you -- how do you capture that data?

11 A. I'm not -- I don't know if I understand the question.

12 Q. I think you said that you monitor the swarm, right?

13 A. Correct.

14 Q. Once you monitor the swarm, what do you see?

15 A. So we -- yeah, the result set is basically a list of peers
16 which are represented as IP addresses from that data set. So
17 we have a list of IP addresses which represent the active peers
18 in the swarm. And we're able to look up information based on
19 those IP addresses to evaluate which ISPs they are associated
16:43:06 20 with, you know, do some analysis on the volumes, that type of
21 thing, to provide estimates so that we're not -- you know, we
22 have some level of expectation based on the activity we see.

23 Q. Can you explain to the jury what a swarm is.

24 A. Sure. So on each of these peer-to-peer networks, if you
25 think of like a unique file, the files are distributed on the

1 network. And the group of people who connect around a specific
2 file, who are at some point downloading, but then eventually
3 distributing the file, that group of people who are
4 participating in the distribution of that file collectively are
5 referred to as the swarm.

6 So you can almost think of it like a swarm of bees.
7 I mean, I think that's where the term originates from. But
8 it's that group of people who are distributing that unique
9 file.

16:44:02 10 Q. And you are saying group of people. Would that be the
11 same as calling them peers?

12 A. Correct, yep.

13 Q. And then do you preserve the data that you collect from
14 this GDPI scanning?

15 A. Yes.

16 Q. And does it get digested in some manner?

17 A. Yeah, we preserve it and store it in a database. And then
18 through kind of the reporting interfaces that we have, we
19 present the data in a more kind of digestible format for humans
16:44:34 20 to look at in reports and things like that.

21 Q. And is that data organized by ISP?

22 A. Yes. That's one of the views, yeah.

23 Q. And in your experience, how reliable is this data?

24 A. It's very reliable. In the ways that we use it for
25 evaluating the overall volume and activity of the piracy, you

1 know, for that type of an analysis, it's extremely accurate.

2 Q. Now, you're not using this data to send notices, are you?

3 A. No, never.

4 Q. And so, in the -- in the period at issue in the contract
5 that's in front of you, PX 4, did you have GDPI data for Cox?

6 A. Yes.

7 Q. And do you have a recollection of what that GDPI data
8 showed?

9 A. I do. I don't recall the exact number, but I remember
16:45:38 10 there being more than 10,000 infringements per day that we
11 observed across that data set related to subscribers or, you
12 know, Cox customers.

13 Q. Now, you said per day, right?

14 A. Correct.

15 Q. Now, Appendix A, is that -- are those figures per day?

16 A. No. Those are -- those are monthly volumes.

17 Q. So roughly speaking, if you were sending notices 20 days
18 in a month at 10,000 a day, what would that have been, the
19 volume?

16:46:17 20 A. I'm sorry, 10,000 a day?

21 Q. Yeah --

22 A. For 20 days?

23 Q. For 20 days in a month, what would that volume have been?

24 A. So 200,000. Testing my math skills.

25 Q. You passed. Are you familiar with how the MarkMonitor

1 system works to send notices under the agreement with the RIAA?

2 A. Yes.

3 Q. And did you help prepare a demonstrative to explain that
4 to the jury?

5 A. Yes.

6 MR. OPPENHEIM: Can we please call up -- with your
7 permission, Your Honor, we will publish.

8 THE COURT: Yes, sir.

9 BY MR. OPPENHEIM: (Continuing)

16:47:26 10 Q. Is this the demonstrative that you helped prepare,
11 Mr. Bahun?

12 A. Yes.

13 Q. Can you walk the jury through -- I see there are four
14 steps here; is that correct?

15 A. Correct.

16 Q. Can you walk the jury through the first step of what
17 MarkMonitor does in this process.

18 A. Sure. And I mentioned some of this when we were talking a
19 little bit about GDPI. But you can basically think of it in
16:47:53 20 these kind of high-level steps. So the initial step is where
21 we would take the information related to the song files in this
22 case that we were searching for and go to the P2P networks and
23 search for files matching those song titles.

24 Q. Okay. And then what would you do?

25 A. So once we -- again, at that stage we would consider those

1 potentially infringing files.

2 The next step would be to download a full copy of any
3 of those files that we've detected with the initial search.
4 And once they're downloaded in their entirety and we have
5 songs, we can then verify that they are, in fact, you know, the
6 song that we were looking for.

7 Q. And how do you go through that verification process?

8 A. For that step, we use a piece of technology from a company
9 called Audible Magic.

16:48:49 10 Q. And where are you downloading the files from?

11 A. The files are downloaded from the peer-to-peer networks
12 where they're found to exist.

13 Q. And why do you use Audible Magic to do the identification?

14 A. For a couple of reasons. One, they're the most accurate.
15 They're kind of the industry standard for this type of thing.

16 But they also allow us to conduct this step of the
17 process, the verification at a very large scale. We're dealing
18 with thousands of files. And so, it's more accurate and more
19 scaleable to use Audible Magic's technology.

16:49:32 20 Q. And for how long have you been using Audible Magic?

21 A. I've been working with Audible Magic's technology, I
22 think, for at least 15 years. I mean, it goes back to very
23 early in my career.

24 Q. And roughly speaking, do you have any idea of how many
25 files you've submitted to Audible Magic?

1 A. Over the course of that time, it's in the millions.

2 Q. And have you ever had occasion to see Audible Magic
3 misidentify a recording?

4 A. No, never a single one misidentified.

5 Q. So what happens after you get a confirmation that a file
6 is infringing?

7 A. So once it's confirmed that it's infringing, then we move
8 on to the third step in this diagram here where we collect
9 evidence.

16:50:21 10 And what's involved there is we actually connect --
11 we establish a full connection with every peer who is involved
12 in the swarm to collect that evidence about the file that
13 they've distributing.

14 Q. And where do you collect that evidence to?

15 A. Into our system, yeah.

16 Q. And what is the process of collecting the evidence? Can
17 you describe that.

18 A. Sure. So after the file has been verified as infringing
19 and we're monitoring the swarm, we see peers, in some cases
16:51:02 20 peers that are already actively distributing the swarm. Our
21 system will sit and monitor that so we can see as new peers
22 enter.

23 And as new peers are discovered, our system will
24 establish a full connection with that peer. That connection
25 allows us to kind of communicate back and forth through the

1 specified process that the peer-to-peer network has
2 established.

3 Each of those communication steps are logged in the
4 evidence that we store for that instance of infringement.

5 Q. If you don't connect to a peer, can you see what a peer on
6 the swarm is doing?

7 A. Can you clarify? Sorry.

8 Q. I think you testified that when a peer comes into the
9 swarm, you connect to them, and so you can exchange

16:52:01 10 information. Are you able to see what one peer is doing with
11 another peer if you're not connected to them?

12 A. No.

13 Q. And why is that?

14 A. It's the design of the protocols. So we can have full
15 visibility into what the peer is doing if we are connected
16 directly to them, but we don't have visibility of their
17 communication with other peers.

18 Q. And what is it that -- the process of connecting to the
19 peer that you engage in, what is that called?

16:52:36 20 A. Oftentimes we call it the handshake.

21 Q. And what is the handshake?

22 A. So it's essentially a process, you can think of it as a
23 digital handshake where there's an exchange of certain messages
24 from our side and from the other peer's side, and kind of that
25 mutual exchange of messages is what we refer to as the

1 handshake.

2 And part of those messages, there's some key data
3 that's exchanged. The peer confirms to us what file. Based on
4 the unique file identifier, it's called a hash. They give us
5 that hash. They also tell us how much of the file they have
6 and are distributing in the swarm.

7 Q. Does MarkMonitor actually download the infringing file
8 from that peer?

9 A. No. At that point, it's not necessary.

16:53:34 10 Q. Why not?

11 A. Well, we've already downloaded the file in its entirety
12 when we initially found it. So we know what the file is, and
13 we have the unique file identifier that guarantees what that
14 file is. It's unique to that specific file.

15 And so, when we communicate with the peer, they tell
16 us what they have, which confirms the file, and they tell us
17 what they're distributing. So there's no need to go further
18 than that when they've confirmed it.

19 Q. Okay. So what happens after MarkMonitor collects
16:54:11 20 information about a peer's distribution and stores it?

21 A. So after we collect that information, the collection of
22 all of that data is packaged up and certain elements of the
23 data are then inserted into what we call a notice. You can
24 think of it as an e-mail.

25 We put that information into the notice, and then the

1 notice gets sent out to the ISP of the peer that we've observed
2 or collected.

3 Q. And would that notice also sometimes be called an
4 infringement notice?

5 A. Yes. Sorry, yeah, infringement notice.

6 Q. And in the case of RIAA, how would the infringement notice
7 be sent?

8 A. In the case of this program we're talking about, we were
9 sending them through e-mail.

16:55:07 10 Q. And who was the sender?

11 A. MarkMonitor.

12 Q. Did the RIAA participate in that process?

13 A. They, I believe, provided us with an e-mail address that
14 they wanted us to send it from. But we were the ones carrying
15 out the actual sending of the notices.

16 Q. And was that e-mail address a MarkMonitor address or an
17 RIAA address?

18 A. I believe it was an -- yeah, it was an RIAA address.

19 Q. Let me turn to the records that you kept for this process.

16:55:43 20 I believe PX-11 is already in evidence, Your Honor.
21 I'd ask to publish.

22 THE COURT: Yes, go ahead. You may publish any
23 exhibit that's already in evidence that you choose.

24 MR. OPPENHEIM: Thank you, Your Honor.

25 BY MR. OPPENHEIM: (Continuing)

1 Q. Do you recognize this document?

2 A. Yes.

3 Q. And can you just briefly -- is this a MarkMonitor
4 document?

5 A. Yes. This is a spreadsheet that we produced containing
6 the records of all of the song files that we downloaded and
7 verified using Audible Magic.

8 Q. Okay. I see there are four tabs.

9 A. Yes.

16:56:33 10 Q. And they relate to each of the networks; is that right?

11 A. Correct.

12 Q. If we look through the four tabs, would they generally
13 look similar?

14 A. Yes.

15 Q. Okay. Can you just quickly walk across this spreadsheet
16 and describe what's in it.

17 A. Sure. So we're on the first tab, meaning BitTorrent. So
18 all of these files were downloaded from BitTorrent.

19 The first column is a Torrent ID, it's just a unique
16:57:09 20 identifier that we attach to a specific torrent file.

21 The next column is Info Hash. So this is the SHA-1
22 hash value or the unique identifier for the torrent.

23 The next column is Matched As. This shows you the
24 key words that we matched when we were looking for the
25 potentially infringing file.

1 Q. So that was what you were searching for?

2 A. Correct.

3 Q. In the first step?

4 A. Correct. The next is Verified Type Name. This is simply
5 a flag in our database to indicate that the file has been
6 confirmed as real. So you'll see "real" in there.

7 Q. Mr. Duval, could you just scroll up and show that there --
8 on this tab.

9 Mr. Bahun, would you ever see on a spreadsheet like
10 this, this column ever have anything other than "real"?
16:58:06

11 A. No.

12 Q. And why is that?

13 A. Because this data set is for files that were contained in
14 the notices sent to Cox. And no notice would have been sent on
15 a file that wasn't identified as "real."

16 Q. And "real" meaning it was confirmed as what?

17 A. It was a confirmed infringing copy of the song.

18 Q. Okay. Sorry. I got us off the titles. There you go.
19 Can you continue on E, please.

16:58:43 20 A. Sure. So then you have First File Name. That's the name
21 of the individual song the first time we saw it.

22 The next is File Size --

23 Q. Can I just stop on that First File Name?

24 A. Oh, I'm sorry. Yeah.

25 Q. Is that first file name generated by Audible Magic?

1 A. No.

2 Q. Who generates that first file name?

3 A. It's a value that we capture when we find the file. So
4 this is the actual name of the file that we found when we did
5 the search.

6 Q. So the peer potentially named it or got it from somebody
7 else who named it?

8 A. Correct.

9 Q. Okay. Keep going, please.

16:59:17 10 A. So then column F is File Size. This is the file size in
11 bytes of the individual song you see listed in each row.

12 Q. Next.

13 A. The next is the SHA-1 Hash Value. So we calculate the
14 SHA-1 hash of each individual song file contained here.

15 Q. Okay. Next.

16 A. The next is First Found. So this is the first date and
17 timestamp when we saw this file.

18 Q. Okay. Next.

19 A. The next is the Torrent Size. So this is -- again, in
16:59:55 20 bytes, but it's actually the file of the full collection of
21 songs in a given torrent.

22 Q. So why would the -- it looks like that the first, I don't
23 know, seven of them or so have the same torrent size. Why is
24 that?

25 A. So because these were all -- all of these songs were

1 bundled together in a single torrent.

2 So for purposes of displaying the data in this
3 spreadsheet, each row represents an individual song, but this
4 whole group was part of one torrent that you could download on
5 BitTorrent.

6 Q. So all of these Black Sabbath recordings would have been
7 in a single torrent?

8 A. Yes.

9 Q. Okay. Next column, please.

17:00:39 10 A. Next is the Torrent Name. So this is the name of the
11 torrent file that would allow the user to download the content.

12 Q. Now, that again -- is that generated by Audible Magic?

13 A. No. That's a value that we capture when we collect it.

14 Q. When you say "we capture it," it's not created by
15 MarkMonitor, is it?

16 A. Not created, no. It's an existing name of a file when we
17 discover it on BitTorrent.

18 Q. Is it only as reliable as the user who named it?

19 A. Yes.

17:01:08 20 Q. Okay. Next column.

21 A. The next is -- actually the next four are values that we
22 capture from Audible Magic. Audible Magic provides these to
23 us. So the first is the Audible Magic info ID, which is a
24 unique identifier. And then they give us artist, track, and
25 album.

1 So these are kind of what they have confirmed the
2 file as being.

3 Q. Now, for the recordings on this spreadsheet, listed on
4 this spreadsheet, did MarkMonitor -- does MarkMonitor have
5 copies of them?

6 A. Yes, we have, I believe, most of the songs that are in
7 this spreadsheet, they're -- we have copies of the songs, yeah.

8 Q. And were those produced in this case?

9 A. Yes.

17:02:01 10 Q. Your Honor -- and how -- just how were they produced?

11 A. So we provided a drive, a hard drive containing all of the
12 music files related, yeah.

13 MR. OPPENHEIM: Actually, can we open -- which is the
14 directory of the hard drive? 16, I think 16 is in. So publish
15 PX-16, please.

16 THE COURT: Is that in? Is that already admitted?

17 MR. OPPENHEIM: I thought it was if I -- yes? Yes.

18 THE COURT: Okay.

19 MR. OPPENHEIM: I believe it's in.

17:02:42 20 MR. BRODY: The directory is in, yes.

21 MR. OPPENHEIM: Is this it? I am sorry. I am having
22 trouble seeing it.

23 BY MR. OPPENHEIM: (Continuing)

24 Q. Do you recognize this?

25 A. Yes.

1 Q. And can you describe what this is.

2 A. So this is another Excel file that we provided that
3 details the -- all of the song files that we provided on the
4 drive.

5 Q. And do these song files correlate by hash to the song
6 files in PX 11 that we were just looking at?

7 A. Yes.

8 MR. OPPENHEIM: So, Your Honor, we would like to move
9 into evidence PX 39, the hard drive that contains the
10 infringing audio files?

11 THE COURT: Any objection?

12 MR. BRODY: May we approach, Your Honor. Yes, there
13 is an objection.

14 THE COURT: All right. Yes, come on.

15 NOTE: A sidebar discussion is had between the Court
16 and counsel out of the hearing of the jury as follows:

17 AT SIDEBAR

18 THE COURT: Yes, sir.

19 MR. BRODY: The concern is this. The testimony while
17:04:07 20 Ms. Frederiksen-Cross was on the stand was that the hard drive
21 contains -- I think it's four files from Ares and zero files
22 from Gnutella, and that those are 40 percent of the total
23 notices.

24 So the hard drive, if the hard drive is being offered
25 as a complete set of everything that was downloaded, it

1 manifestly is not.

2 MR. OPPENHEIM: So first off, it's apples and oranges
3 that he is confusing notice data with the infringing files.

4 So -- and by the way, Ms. Frederiksen-Cross isn't the
5 one sponsoring this.

6 But having said that, let me -- right. What happens
7 here is -- and I have explained this, apparently not well
8 enough -- that Gnutella and BitTorrent can use the same
9 infringing file.

17:05:10 10 And so, you can have an infringing file that is in a
11 BitTorrent folder that is used for infringement on -- excuse
12 me, an infringing file in the BitTorrent folder that can be
13 used on Gnutella.

14 And so, you can then find infringements on Gnutella
15 and send notices, which would then lead to having notices for
16 Gnutella.

17 If Mr. Brody wants to cross-examine on this issue, he
18 is free to. But there is no issue of the reliability of this
19 evidence.

17:05:40 20 THE COURT: So he can identify what's on this hard
21 drive?

22 MR. OPPENHEIM: Yes.

23 THE COURT: He has reviewed it?

24 MR. OPPENHEIM: We are going to open it, we are going
25 to look at it, may even listen to a song.

1 THE COURT: It may be incomplete. And then you can
2 go into that. But I don't see why that --

3 MR. BRODY: I think it's a question of what it is
4 being offered for, Your Honor. I mean, it is a hard drive. It
5 has got songs on it. I am not disputing that.

6 THE COURT: Yeah.

7 MR. BRODY: If it is being offered -- the
8 representation is that this is a complete set of what they
9 downloaded. It's not.

17:06:11 10 THE COURT: Okay.

11 MR. BRODY: And I think the evidence has been
12 explicit on that.

13 MR. OPPENHEIM: So, he said it was infringing files
14 that correlate to files in -- on the spreadsheet.

15 THE COURT: Well, so it doesn't include all of what's
16 on 16?

17 MR. OPPENHEIM: It's both over and under exclusive
18 because there were a lot of works that we didn't sue on.
19 Right? And there were --

17:06:38 20 THE COURT: Well, the concern is that the jury is not
21 being told what's on 11 and whether it's the same that's on 16.

22 And so, you need to clear that up if it's separate,
23 if you can -- if you can identify the reliability of the
24 information that's on the hard drive. Right?

25 MR. OPPENHEIM: So Mr. Brody is free to cross-examine

1 and say, you don't have everything, or you have at too much,
2 but that is entirely up to him.

3 THE COURT: He doesn't want you to represent on
4 direct examination that it contains everything.

5 MR. OPPENHEIM: I don't believe I have.

6 THE COURT: I know you haven't so far.

7 MR. OPPENHEIM: Okay.

8 MR. ELKIN: Your Honor, just one point. One issue
9 that we have with regard to the hard drive is that there hasn't
10 been any evidence that anyone at MarkMonitor has actually
11 listened to what it is.

12 There has been no foundation that Mr. Bahun has even
13 listened to what it is being offered for. I think there is a
14 foundational issue that I did address at summary judgment that
15 I don't think this testimony has overcome.

16 MR. OPPENHEIM: Every one of the files went through
17 Audible Magic, which did essentially the equivalent of a
18 digital listening. And Mr. McMullan testified that he listened
19 to a sample of them. And other witnesses -- as did -- excuse
20 me -- Barbara Frederiksen-Cross said she did. So did
21 Mr. Kokakis.

22 So that is simply not accurate.

23 MR. BRODY: At the same time, during
24 Ms. Frederiksen-Cross' examination, we saw examples where the
25 files that were identified in 16, the Audible Magic

1 spreadsheet, didn't match what was on that spreadsheet.

2 So, you know, it's --

3 THE COURT: Your exception is noted. I am going to
4 let it in. You clear up the fact that it -- what it is and
5 what -- where it came from. And I think that's sufficient.

6 All right. Your exceptions are noted.

7 MR. ELKIN: Thank you.

8 NOTE: The sidebar discussion is concluded; whereupon
9 the case continues before the jury as follows:

17:09:23 10 BEFORE THE JURY

11 THE COURT: All right. That exhibit will be
12 received.

13 And please proceed.

14 MR. OPPENHEIM: Mr. Duval, can you bring up PX 39. I
15 will apologize in advance, it's not a document. It's a big
16 hard drive of music files.

17 THE COURT: Okay.

18 BY MR. OPPENHEIM: (Continuing)

19 Q. Do you recognize this directory, Mr. Bahun?

17:09:48 20 A. Yes.

21 Q. And do you know where this -- and do you know what's
22 within this directory?

23 A. Yes. So there is -- we've organized it by a series of
24 folders. And inside of each folder are the song files that
25 were downloaded from the corresponding peer-to-peer networks.

1 Q. And was this produced by MarkMonitor?

2 A. Yes.

3 Q. Can we -- so it looks like that there is one folder that
4 is labeled Ares; is that right?

5 A. Correct.

6 Q. Mr. Duval, could you just open that, please.

7 Can you describe what's in this file, please, or this
8 folder.

9 A. Yes. For Ares, there were four audio files that we
10 downloaded and placed on the drive. So, yeah, there's -- you
11 see four separate MP3 files here.

12 Q. Okay. Can we go back to the main directory, Mr. Duval.

13 And there are a lot of BitTorrent ones, just like
14 No. 7, let's go down.

15 And so, what is this we are seeing right now,
16 Mr. Bahun?

17 A. Yes. So BitTorrent functions a little bit differently.
18 You will see some differences by peer-to-peer network. And so,
19 for BitTorrent, within each folder there is an individual
20 folder named what the hash value is for the infringing file.

21 So if you open one of those, inside you will see, in
22 this case, two files. There could be multiple though. If you
23 have a -- if you have a full album or something like that, you
24 may see a whole -- a larger set of files.

25 In this particular case, you see the MP3 file and

1 then -- excuse me -- the .torrent file. So we preserved both
2 in this set of data.

3 Q. Would you just play ten seconds of that file.

4 NOTE: A music excerpt is played.

5 BY MR. OPPENHEIM: (Continuing)

6 Q. Do you recognize that recording, Mr. Bahun?

7 A. Yes.

8 Q. Do you have an understanding as to how many -- I'm sorry,
9 let's go back to the first directory. Thank you. Go down to
10 the bottom three.

17:12:35

11 What are those -- what are those called, Mr. Bahun?

12 A. So those three are related to downloads we did on -- from
13 the P2P network eDonkey.

14 Q. Can you just open one of those, please.

15 And can you describe what this is, Mr. Bahun.

16 A. Yes. Again, based on the way this peer-to-peer network
17 works, or functions, you just see a collection of all of the
18 individual songs that we downloaded.

19 Q. Okay. Can we go back to the first directory, please.

17:13:09

20 I notice that one of the peer-to-peer networks isn't
21 here; is that correct?

22 A. Yes.

23 Q. And which one is missing?

24 A. Gnutella.

25 Q. And why is it not here?

1 A. At the time when we loaded these songs onto the drive,
2 there are a lot of songs that we can find that exist on
3 multiple networks. So I believe that there was just overlap of
4 a lot of those songs.

5 So the ones from Gnutella probably were contained in,
6 most likely because of the size here, probably the BitTorrent
7 folders.

8 Q. Do you have a rough understanding of how many song files
9 there are in total on this hard drive?

17:13:50 10 A. I don't have the exact number, but I think there is in
11 excess of 40,000 on here.

12 Q. We can pull that down, please.

13 Can we publish PX 16, please.

14 Do you recognize this document, Mr. Bahun?

15 A. Yes. I think -- is this -- this is the same document as
16 we had up before; is that right?

17 Q. I think this should be PX 16; is that right? Okay.

18 No, this is a different document. I think the one
19 before we had the tabs. This says something else.

17:14:47 20 We put this one up before? Oh, I apologize. You are
21 right, apparently. Let's just move on then. I think everyone
22 will be happy with that.

23 Let's turn -- can we please pull up PX 33.

24 Do you recognize this directory?

25 A. I believe so, but could you open one of the folders?

1 Q. Sure.

2 A. Yes.

3 Q. And what do you recognize this directory to be?

4 A. So these are what we call evidence packages. So each of
5 these zipped files contained within the folders in this
6 directory each individual one represents an evidence package
7 related to a unique infringement.

8 Q. Okay. Can we, I guess we -- let's just go back for a
9 minute to the last directory, the higher level directory, if we
10 can.

11 Okay. And how does this -- how is this directory
12 organized?

13 A. So we created folders for -- you can see they are named
14 year and month. And just organized, all of the zip -- the
15 evidence packages, the zip files within each of those folders.

16 Q. And so, now let's open one, please.

17 Okay. And they are zip files. So do you have to
18 unzip them to open them?

19 A. Yes.

20 Q. Okay. And I think Mr. Duval is doing that. Okay.

21 Is this what you typically see when you unzip them?

22 A. Yes. So there are six log files within each of the
23 packages, yes.

24 Q. Okay. And can we open the first one, please, Mr. Duval?

25 And can you just describe what this is, please,

1 Mr. Bahun.

2 A. Yeah. I think first it might be helpful to mention
3 generally all of these log files are in a format that we call
4 XML.

5 So you will see at the top of all the log files kind
6 of the blue -- so the format might look a little bit different
7 than kind of a typical txt document.

8 But for this particular one, the activity log, you
9 can see this one captures the individual steps of the -- of the
10 activity in the collection of this case.

11 So if you look at the first, under the section where
12 it says Activities, you see Activities Timestamp.

13 So it provides a date and timestamp, and then it
14 lists what activity was conducted at that date and time. So
15 shared files list connecting to the peer and then down the
16 list.

17 Do you want me to --

18 Q. Yeah, just walk through each step quickly, though, because
19 I think everybody is --

17:17:58 20 A. Okay. So we -- you can see we connect to the peer, and
21 then the peer connection is closed.

22 Then we connect -- in this particular case, we
23 connect to the peer again. It notes where we send the client
24 handshake.

25 Again, the peer connection is closed.

1 And then we connect to the peer again. Do another
2 handshake. We receive the peer's handshake at that time.
3 So -- and then you will see where it notes that the connection
4 is fully established.

5 So the handshake has been completed, we're connected
6 to the peer, communicating with them.

7 And then you'll see "download stopped" and "peer
8 connection closed."

9 And then the last step of the process is to conduct
17:18:42 10 what's called a trace route.

11 Q. Mr. Bahun, why did -- in this example, did you connect
12 three times?

13 A. It's hard to say why. I mean, this can occur. We -- but
14 it shows that we connected. The peer connection was closed.
15 We connected again. And eventually they did complete the
16 handshake. And you can see where the connection was fully
17 established.

18 Q. So it wasn't sufficient for MarkMonitor the first
19 connection because the handshake wasn't completed; is that
17:19:21 20 correct?

21 A. Correct, correct.

22 Q. So MarkMonitor will continue to try to connect until the
23 handshake is done?

24 A. Correct.

25 Q. Okay. So let's go out of this. Go to the next log,

1 please.

2 And can you describe this one, please.

3 A. Sure. So is this the communication log. And this
4 captures the kind of relevant steps in the -- in a little more
5 detail in the communication process.

6 So, again, looking to the section just where it's
7 labeled Communications, you can show that it captures the
8 direction of the communication, the timestamp, some of the
9 information related to the handshake. So you can see the peer
10 ID.

17:20:08

11 And it's recorded both directions, so in and out. So
12 the messages that are being sent to us by the peer and the
13 messages that we're sending back to that peer are captured
14 here.

15 And then --

16 Q. Okay. Can we go to the next log, please.

17 And can you describe this one, please.

18 A. Yes. So this log we call the content info log. This is
19 related to the specific hash, the file that's being distributed
20 on the peer-to-peer network.

17:20:40

21 So you can see here under the Content List, it shows
22 a series -- or a few different pieces of information. The
23 content shared, that's the size in bytes that the user is
24 distributing, the -- it says: Verified, downloaded, the size
25 again in bytes. And then you've got the name of the MP3 file,

1 in this case, Jake Owen, "The One That Got Away."

2 Q. And why is -- why do you have both the content shared
3 number and the size number?

4 A. So those pieces of information allow us to calculate how
5 much of the file this individual peer is distributing in the
6 swarm.

7 Q. And in this instance, how much of the file are they
8 distributing?

9 A. In this instance they're distributing 100 percent of the
10 file.

11 Q. Okay. Let's go to the next log file, please.

12 A. So then you have the file list. This can vary a little
13 bit depending upon the peer-to-peer network because, again,
14 they function a little differently.

15 In the case of files where -- or, yeah, like a
16 torrent that had multiple files, what you would see here is a
17 list of all the individual songs. In this particular example,
18 there was one MP3. So it just lists that single song that is
19 related to this case.

17:22:09 20 Q. Okay. Can we go to the next log file, please.

21 A. So the Investigation Info is more specific to information
22 that identifies this peer. What I mean by that is you can see
23 the Initiated Date and Timestamp, the Completed Date and
24 Timestamp.

25 So that's -- you know, the initiated is when we first

1 connected to the peer. Completed is when we finished and
2 disconnected.

3 It lists the protocol, in this case, BitTorrent.
4 Their IP address. The port that they're using to communicate.
5 And a series of other information. I don't know if you want me
6 to walk through everyone. But essentially it's information
7 that identifies the ISP and kind of some general location
8 information based off of the IP address.

9 Q. And who was the ISP listed here?

17:23:06 10 A. Cox Communications.

11 Q. Okay. Can we go to the next log file, please.

12 A. And then the last one is the trace route. So this is the
13 last step in the process for us. We do a trace route. It's --

14 Q. Can you explain what a trace route is to the jury, please.

15 A. Sure. It's essentially a way to map from our system or
16 our computer, how the connection flows across the Internet to
17 where the peer is located.

18 So you can see that it takes a series of hops, and we
19 record information about each of the hops that it takes to get
17:23:45 20 from our agent or our server, in this case, where the scanning
21 is occurring, all the way down through to where the peer is.

22 Q. We can close that out, please.

23 Did we cover all the -- okay.

24 And are you aware that some of the evidence packages,
25 for purposes of this case, were not produced?

1 A. Yes.

2 Q. And can you explain that?

3 A. Yeah. So when we went to produce the evidence packs
4 related to each of the notices, those were stored in archives.
5 This data goes back to 2012, I believe.

6 And so, when we went to pull that information from
7 the archives, we did have an event occur with our archives
8 where we had a drive in our archive setup that failed. This
9 was sometime ago.

17:24:46 10 And our engineering team and IT staff did everything
11 they could to recover as much as possible, but there was a
12 portion of data from that failed drive that was related to this
13 case and wasn't recoverable.

14 There was also other data, too. It wasn't just
15 related to the RIAA in this case. But we recovered as much as
16 we could. But there is some missing.

17 Q. Are you aware of kind of what time period that data came
18 from?

19 A. Yeah. I was just going to say, it was one of the oldest
17:25:17 20 of the drives or one of the older drives. So I think the
21 overwhelming majority of the evidence packages we lost from
22 that occurrence were in the 2012 time period.

23 Q. But not from 2013/'14?

24 A. Correct. I don't recall how many there may have been from
25 that time period. I think it was only a very small number, if

1 any. But the majority of the ones we were unable to produce
2 were from 2012.

3 Q. Can we, please, look at PX-17. Publish that, please.

4 It may be -- unless you recognize it from this, I
5 will ask Mr. Duval to open one of these folders.

6 Do you recognize this directory?

7 A. Yeah, if you could open one --

8 Q. Open one of the folders?

9 A. Yeah.

17:26:24 10 Q. And maybe open one of those.

11 A. Yes. Okay. Yes, I recognize it.

12 Q. What is this exhibit?

13 A. So these are copies of all of the notices -- excuse me,
14 all of the notices that were sent to Cox Communications.

15 Q. And do you know roughly the time frame for the notices
16 that were sent in this directory?

17 A. Yes. I believe it -- excuse me, I believe it was January
18 of 2012 through March of 2015.

19 Q. And I want to look at just one of these notices, please.

17:27:08 20 And we have one up. Great. Can we zoom in on just the top
21 piece there that says -- above: Begin PGP sign message.

22 Can you just describe what this portion of the notice
23 is.

24 A. Yeah, I'm sorry. You said the top section here?

25 Q. Yeah, just the top section.

1 A. So the -- yeah. The way we store these, the top section
2 that kind of is above the: Begin PGP sign message where the
3 dashes are, is actually the message header. So this is just --
4 we store the information about the message when it was sent.
5 So --

6 Q. And then below that, the -- with: Dear sir.

7 A. Yeah, so that's --

8 Q. Sir or madam. Sorry.

9 A. Yeah, that portion is what we call the body of the notice.
10 It's the actual e-mail that was sent to Cox.

11 Q. And who would have drafted that language?

12 A. This would have been an approved notice template that we
13 got from the RIAA.

14 Q. Okay. And can we just scroll down a little, please.

15 So this is the notice that would have gone to Cox?

16 A. Yes.

17 Q. Okay. Keep scrolling, please. Okay.

18 And can you go to the bottom part of the notice,
19 please.

20 All right. From List of Infringing Content down, do
21 you see that? Can you describe what that is, please.

22 A. Yes. In between kind of the rows of dashes there, that's
23 where we list out the infringement or the infringing content
24 that we identified related to this specific notice.

25 Q. So it says: Infringing work, "No Love." What is that?

1 A. That would be the -- or infringing work -- "No Love" is
2 the name of the song in this case.

3 Q. Okay. And what is File Name?

4 A. The file name is the actual name of the file that we found
5 on the peer-to-peer network.

6 Q. Okay. And what is First Found and Last Found? What does
7 that mean, excuse me?

8 A. The first found and last found are specific timestamps --
9 previously in the logs, I think it was called initiated and
10 completed. But these are essentially start and stop time
11 periods of when we saw the peer distributing in this particular
12 infringement.

13 It's meant to give the ISP a marker so that they can
14 use it to look up the subscriber that was using this IP during
15 that window of time.

16 Q. All right. I think we know what File Size is.

17 What is the IP Address?

18 A. So this is the IP address. And just below it the port
19 specific to the peer that we observed infringing here.

17:30:12 20 Q. And the network in this case?

21 A. Gnutella.

22 Q. So the information contained within this, where does that
23 come from?

24 A. This comes directly from the log files that we went
25 through. So this is the -- essentially the infringement

1 record.

2 So it's stored within the log files, and also in kind
3 of some other various parts of our database, all part of what
4 we call the infringement record.

5 Q. You testified earlier that a hard drive -- archived hard
6 drive crashed and you lost some of the evidence files.

7 Did that impact the notices that you had?

8 A. No. I believe we had all of the notices preserved and
9 were able to produce those.

17:30:57 10 Q. So even though you may have lost some of the evidence
11 packages for certain infringement notices, you did have the
12 information from those evidence packages in these notices; is
13 that correct?

14 A. Yes.

15 Q. Can we pull up PX-14, please.

16 Do you recognize what this is, Mr. Bahun?

17 A. Yes.

18 Q. What is it?

19 A. So this is a document -- or again, spreadsheet that we
17:31:54 20 provided containing records of all of the notices on some of
21 the corresponding infringement data related to those notices.

22 Q. Mr. Duval, could you just kind of scroll down.

23 While Mr. Duval is scrolling slowly, if he were to
24 come to the end, do you have any sense of how high the number
25 would be, Mr. Bahun?

1 A. Yes. I think in this, I think we had 284,000. Yeah,
2 280,000 -- or, excuse me, 284,444, not counting the header
3 column or header row.

4 Q. And where were those 284,000 notices sent, infringement
5 notices sent?

6 A. They were sent to Cox Communications at the abuse@cox.net
7 address you see listed in column D.

8 Q. And, Mr. Duval, can you now kind of just scroll to the
9 right so the jury can see the rest of the spreadsheet. I'll
10 resist going through every line.

11 Can we open PX-11 again, please.

12 Bear with me. I'm going to try to manipulate my way
13 through several of these with respect to one issue that was
14 raised earlier.

15 Can you go to row 118, please. Oh, I'm sorry, you're
16 on the BitTorrent tab. Can you go to the eDonkey tab, please.
17 And now go to row 118? Okay.

18 And, Mr. Bahun, what is -- is there a way that we can
19 see the column headings while you do this? No? Okay.

20 So maybe you -- if we need to, we'll scroll up.

21 What is this -- can you describe what this line is on
22 this spreadsheet?

23 A. Yes. This row would represent a specific file that we
24 downloaded and verified.

25 Q. And is the -- is column B what your search terms were?

1 A. Yes.

2 Q. Wait a minute. Hold on. He is trying to do what I asked
3 him to do. Apologies. There we go.

4 Now, go to 118. Okay. Now this will work a little
5 better.

6 So 118, Mr. Bahun, so what -- what is Lady Gaga
7 "Poker Face" there? Was that what you searched for?

8 A. Yeah.

9 Q. Okay. And then it -- what does it mean that it says:
10 Real?

17:35:59

11 A. When we processed it against Audible Magic, this file
12 matched a referenced fingerprint in their database.

13 Q. And if we scroll to the right, will we see what that was?

14 A. Yep, yes. If you go all the way to the right, you should
15 see.

16 Q. Maybe highlight -- okay. And what did it match as?

17 A. Lady Gaga, "Poker Face."

18 Q. Okay. Now, go back to the left, if you would, Mr. Duval.

19 And do you see where it says that first file name
20 column?

17:36:33

21 A. Yeah.

22 Q. What does it say there?

23 A. Taylor Swift, "Love Story."

24 Q. Do you understand why there might be a difference here
25 between it saying Taylor Swift and it being Lady Gaga?

1 A. Yeah. Yeah. We do see files on the networks that are
2 mislabeled at times. This could be called anything. You know,
3 in this particular case, the file was called or was mislabeled
4 as Taylor Swift, "Love Story" in the file name. But when we
5 downloaded it and processed it, it was positively matched to
6 the song "Poker Face" by Lady Gaga.

7 Q. Okay. Mr. Duval, PX 39, please. The hard drive that we
8 looked at earlier.

9 Okay. And we were on eDonkey tab. So let's look in
10 eDonkey here, part one, please. And can you look for the one
11 that has a file named Taylor Swift, "Love Story."

12 A. Yes.

13 Q. Is that -- would that correlate back to what we were just
14 looking at on the other spreadsheet, Mr. Bahun?

15 A. It appears to. Could you switch back to the other file
16 just for a second?

17 Yes, it does correspond to this file.

18 Q. And how do you know?

19 A. I was looking at the hash value in the file name. So we
17:38:04 20 append that here. We add the hash value as the unique
21 identifier. So I am able to -- yeah, to determine that based
22 on that.

23 Q. Okay. So let's go back to the hard drive, please. And
24 Mr. Duval, let's listen and see whether it is Taylor Swift or
25 Lady Gaga.

1 NOTE: A music excerpt is played.

2 BY MR. OPPENHEIM: (Continuing)

3 Q. Mr. Bahun, do you recognize that recording?

4 A. Yes, I do.

5 Q. You recognize that recording?

6 A. Yes.

7 Q. Now, was that Taylor Swift or Lady Gaga?

8 A. That was -- that was Lady Gaga.

9 Q. Let's turn to PX 12, please. I am sorry.

10 Did you -- just the first page of it.

11 So we have a stipulation on the first page of PX 12.

12 THE COURT: All right.

13 MR. OPPENHEIM: So if you could publish just the
14 first page, please, Mr. Duval.

15 BY MR. OPPENHEIM: (Continuing)

16 Q. Do you recognize this document, Mr. Bahun?

17 A. Yes.

18 Q. Can you describe what it is?

19 A. This is a summary of the notices that we sent to Cox
17:39:51 20 between 2012 and 2015.

21 Q. And did you assist in the preparation of this summary?

22 A. Yes.

23 Q. And can you describe the difference between the column
24 that says Full Data Set and the column that says February 1,
25 2013, to November 26, 2014?

1 A. Sure. So the full data set is -- we provided data from
2 January 1 of 2012 through March 31 of 2015.

3 So the first column -- or the full data set column
4 there represents a summary of the numbers involved with those
5 notices.

6 And then the other one is kind of a subset, it's
7 trimmed down. And basically within the time frame specified,
8 those are the corresponding numbers.

9 Q. And you said the time frame specified. Do you understand
10 that that's the claim period of this case?

11 A. Yes.

12 Q. Okay. And can you just describe the notices sent in the
13 full data set.

14 A. Yes. So during -- or in the full data set, we had 284,444
15 notices sent.

16 Q. To whom?

17 A. To Cox.

18 Q. And what kind of notices?

19 A. Infringement notices.

17:41:09 20 Q. And then within the claim period, how much infringement
21 notices were sent to Cox?

22 A. 163,148.

23 Q. And all of them came from the antipiracy2@riaa e-mail
24 address?

25 A. Yes.

1 Q. And where did all of them go to?

2 A. They were all sent to abuse@cox.net.

3 MR. OPPENHEIM: No further questions. We will pass
4 the witness.

5 THE COURT: All right. I think that we will end the
6 testimony for tonight now and go to cross-examination tomorrow
7 morning.

8 So thank you all for your patience. It was a long
9 day.

17:41:51 10 On Monday afternoon, when I initially instructed you,
11 I talked about infringement and using the word "infringement"
12 and "infringement notices." And you have seen the words. And
13 we have talked about it a lot during the course of the trial.

14 I just wanted to remind you that the ultimate
15 decision on whether Cox is liable for infringement is yours.
16 It's an issue of -- ultimately an issue of fact. And what you
17 have been hearing is evidence in support of that or non-support
18 of that.

19 So I just want you to keep that in mind. I know it
17:42:28 20 was just a day-and-a-half ago, but I am sure it seems like
21 quite a bit longer than that.

22 So have a good evening. Again, no research, no
23 investigation, please don't speak to anybody about the case.
24 Thank you.

25 We will see you tomorrow at 9 o'clock.

1 NOTE: At this point the jury leaves the courtroom;
2 whereupon the case continues as follows:

3 JURY OUT

4 THE COURT: All right. Anything before we adjourn?

5 MR. ELKIN: Just very briefly, Your Honor. I think
6 tomorrow, time permitting, there may be two Cox witnesses that
7 will be called to support plaintiffs' case in chief. As I have
8 notified both the Court and counsel, I intend to sort of on my
9 cross, go outside of cross to take them in our case.

17:43:45 10 I was wondering whether the Court would actually let
11 the jury know what's going on so that when it comes time to our
12 case and we have no witnesses, they will know what is
13 happening.

14 THE COURT: I am happy to do that. I think that's
15 proper.

16 And you are in the middle of your testimony, so
17 please don't discuss the testimony that you have given so far
18 with anybody tonight before you come back tomorrow on the
19 stand. You may discuss other matters, testimony that we
17:44:15 20 haven't discussed so far, but not any of the testimony you have
21 given. All right?

22 THE WITNESS: Yes.

23 THE COURT: Okay. All right. Yes, sir.

24 MR. GOULD: Should we let Mr. Bahun go while we take
25 up other issues?

1 THE COURT: All right. You are excused until
2 9 o'clock tomorrow morning.

3 NOTE: The witness stood down.

4 MR. OPPENHEIM: Your Honor, an issue was raised in
5 Mr. Elkin's opening where he flagged -- or flagged is not the
6 right word -- foreshadowed what Mr. Carothers was going to say
7 with respect to the decision to throw away the first notice --
8 or, excuse me, ignore the first notice. And we would like to
9 offer, if the Court will accept it, a bench memo on the issue.

17:45:12 10 Mr. Carothers, in his deposition, denied that any
11 such study was done. And in discovery we requested every
12 possible way to get that kind of information. And nothing was
13 produced. And we don't believe that Mr. Carothers should now
14 be allowed to get up and testify to something for which there
15 is no foundation and for which we've asked and been told it
16 doesn't exist.

17 MR. ELKIN: Your Honor, that's just -- I haven't seen
18 the memo, but we are happy, obviously, to respond to it.

19 Mr. Carothers testified in his deposition not about
17:45:45 20 studies, but that he who had developed CATS, and he who had
21 been the system administer for a long time, observed himself
22 patterns. And there was no -- it's like the same thing, you
23 know, are there studies?

24 If you are observing and working and living and
25 breathing this each and every day, he is going to testify to

1 the same thing that he has been -- it has been his experience
2 based upon his examination of what happened at the time.

3 So he didn't just invent "hold for more" out of thin
4 air. It was based on his experience. And he will provide the
5 background for that, and they can cross-examine him on it.

6 THE COURT: So is that --

7 MR. OPPENHEIM: Your Honor -- I am sorry.

8 THE COURT: So is that consistent or inconsistent
9 with his testimony from BMG? Do they correlate at all?

10 17:46:40 I am just wondering whether this was ground that was
11 covered back with the BMG case?

12 MR. OPPENHEIM: I don't believe so, but we can check
13 overnight, Your Honor. And what Mr. Elkin just represented was
14 Mr. Carothers' testimony is not my recollection when I took his
15 deposition, that he said anything of the sort.

16 We are citing in this bench memo the snippet of
17 testimony that we think is relevant, but we are happy to have
18 them produce additional testimony --

19 THE COURT: Yeah, send me the deposition and I will
20 17:47:16 look at it tonight.

21 MR. OPPENHEIM: Can I offer the bench memo as well?

22 THE COURT: Yes, you may.

23 MR. ELKIN: I believe, Your Honor, he testified at
24 BMG with regard to this very issue. I don't know what's in
25 this bench memo. We will look at it and respond.

1 Thank you.

2 THE COURT: All right. And, you know, I'm here
3 early, so if you want -- if you want to discuss this at 8:45
4 because it is going to be an issue tomorrow, let's come back in
5 at 8:45 and talk about it then.

6 And will that give you an opportunity to respond? I
7 know you have the nightshift going, but let's -- and if you
8 have to do it orally with exhibits, I will accept that as well.
9 We are getting this at the last minute.

17:48:08 10 And so do the best you can to at least collect the
11 information you want to put forth, and I will look at it.

12 MR. ELKIN: Thank you, Your Honor. I appreciate
13 that.

14 THE COURT: Yes, sir. All right. I have a 1:15 plea
15 tomorrow?

16 COURT SECURITY OFFICER: 1:10.

17 THE COURT: 1:10. So we will adjourn at 1 and go
18 until 2, but you are going to have to clean up the first tables
19 a little bit for another case.

17:48:32 20 All right. Well, thank you. We'll see you at 8:45,
21 then, tomorrow. We're in recess.

22 NOTE: The December 4, 2019, portion of the case is
23 concluded.

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25

CERTIFICATE OF COURT REPORTERS

We certify that the foregoing is a true and accurate transcription of our stenographic notes.

/s/ Norman B. Linnell
Norman B. Linnell, RPR, CM, VCE, FCRR

/s/ Anneliese J. Thomson
Anneliese J. Thomson, RDR, CRR